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ABSTRACT

This report on the design of a new pattern for the training of research, development, demonstration/dissemination, and evaluation personnel in education contains a short introductory section, "Activities of the Design Phase," and four extensive appendixes: minutes of the interim governing council meetings; the August 1, 1970 progress report; the September 1, 1970 progress report; and the preliminary final report of November 15, 1970. The components involved in the program were the identification and organization of the skills and competencies required, the development of the instructional model by which individuals in project settings would be trained in RDD&E competencies and skills, and the overall organization and management system for the training program. The details of the proposals included in the preliminary final report include the rational; theoretical framework; objectives of the training program; performance criteria and evaluation plan; the institutions of the consortium; the training programs proposed for developers and evaluators, generalists and specialists, and long-term training; a simulation for a generalist trainer in a development program; recruitment, selection, and induction; the operation of the training programs; ability of the institutions in the consortium to fulfill their role; timelines by event and task; budget; and bibliography. (MBM)

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FINAL REPORT
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Activities of the Design Phase
(Volume 1 of 4)

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

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December 18, 1970

U. S. Department of
Health, Education, and Welfare
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Research Training Branch
National Center for Educational Research and Development

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THE ACTIVITIES OF THE DESIGN PHASE

From the beginning the activities of the design phase were divided into three main sections. One component of the design dealt with identifying and organizing the skills and competencies required of individuals practicing RDD&E. A second component dealt with the instructional model by which individuals in project settings would be trained in RDD&E competencies and skills. The third component was the overall organization and management system for the training program. Of the six members of the core design group, two were assigned to each major component. There was, of course, some shifting and a great deal of interaction between these components, but for the most part the members of the core design group stayed with their original assignments throughout the design phase.

The core design group worked primarily with two sets of outside consultants: The Working Council, a group of twelve men from the consortium institutions; and the Interim Governing Council made up of top administrators of the seven consortium institutions. The Working Council met on five occasions to review and provide help on various aspects of the design. Individual members of the Working Council also were involved for a number of additional days of work.

The Interim Governing Council was formed during the working council session of September 30 to provide an initial governing and policy-making board for the consortium. It met regularly between then and the end of the design phase and developed not only the basic documents and the basic working procedures for the consortium, but also made a number of difficult policy decisions which were necessary for the preparation of the final report. The dates on which the Working Council met were July 14, August 24, September 30, November 3 and December 3. The dates of the meetings of the Interim Governing Council were October 12, October 20, November 3, November 20 and December 3. Three interim reports were filed with the government; one on August 1, one on September 1 and one on November 15.

The best way to describe the activities of the design phase is to describe the work accomplished in the intervals between the Working Council meetings, between the Interim Governing Council meetings, and to use as the basic documents for describing that work the interim reports to the government and the minutes of the Interim Governing Council meetings. Such is the format of the following pages.

The period from June 19 to July 14 involved freeing the designated staff from their existing work assignments, calling the first meeting of the Working Council, and developing an initial plan for accomplishing the work of the design phase. A two-day meeting in Washington on June 30 and July 1 provided some clarification of the guidelines for the final design.

On July 14, 1970, the first full Working Council session was held at Teaching Research in Monmouth. The morning was spent in clarification of the nature of the design, a general review of dates and time lines, and a determination of the relationship of the Working Council to the core design team. The afternoon was spent in intensive working sessions on each of the major components of the design phase. At that point in the design phase most of the effort was concentrated on the determination of the tasks which had to be done and in the conceptualizing of the work of the design phase.

The August 1 report was written as a result of the inputs from the Working Council. The August 1 report contained a clear statement of the staff assignments, as clear as possible a definition of the tasks that had to be accomplished in the design phase, and a pert chart or time line against which these activities had to be accomplished. A copy of the August 1 report is Appendix B.

By the August 24 meeting of the Working Council a considerable advance had been made in clarifying the nature of the tasks to be accomplished. The first surveys of possible training sites to determine which sites had projects which could serve as training projects had been completed. A great deal of effort was spent at the Working Council session attempting to conceptualize the dimensions along which projects varied. The complications of the instructional model were described and a number of suggestions were made for simplifying it and for handling some of the difficult problems. Also the Working Council confronted the major decision as to which training programs to have initially: Research, Evaluation, Development, or Dissemination.

The Working Council inputs pointed to a decision to concentrate on Development and Evaluation and provided reasons for this linked to National needs and priorities and Regional needs and priorities.

The September 1 report was written as a result of the inputs of the August 24 Working Council meeting. It contained the decision to go initially for Development and Evaluation, as well as a detailed description of the training model, an initial scheme for the management of the entire operation, and a first description of some of the problems of the specification of competencies in Development and Evaluation. A copy of the September 1 report is Appendix C.

By the September 30 Working Council meeting a detailed working draft of the competencies involved in Development and Evaluation was provided to the Working Council members and time alloted for discussion of the task breakouts. Also the initial development of a competency profile based on the specification of the competencies and skills was in rough draft form.

However, it was obvious that the training program was now taking on a concrete enough design that the consortium had begun to worry about critical operational decisions and policies; in short, it was time for the official formation of the consortium to carry out the training program. Management and governance of the training program were becoming critical issues, and the consortium members could no longer allow the design to be developed without confronting the hard issues of how to put the design into operation.

At the September 30 working council meeting the body known as the Interim Governing Council was formed. This group was made up of top administrators in all of the seven member institutions of the consortium. It was constituted as a policy-making board, with the director of the design project as the chief executive officer of the Interim Governing Council. The Interim Governing Council proceeded to meet regularly during October and November to make decisions about the nature of the training design and how to implement it in each of the consortium institutions. The minutes of the Interim Governing Council meetings are included as Appendix A. However, we will summarize here in short what was accomplished at each Interim Governing Council meeting.

At the initial Interim Governing Council meeting on October 12, 1970, the group officially formed itself as the policy-making body to prepare their institutions for implementation of the training program. They determined the membership of the Interim Governing Council, received an explanation of the components of the training design as they were now taking shape, and requested the number of specific pieces of information to be provided by the next meeting. In particular they ask for information on the nature of the skills of the trainees when they entered the program, the nature of the skills necessary for jobs that they would be trained to perform on exit, and a simulation of the progress of a trainee through the training program. This would enable the Interim Governing Council members to determine something about the kinds and budget level of commitments from each of the consortium institutions.

At the second Interim Governing Council meeting on October 23 a draft of the official document forming the consortium was presented, edited, and approved. There was considerable discussion over how to insure that the training program would exist after the phase-out of federal funding. The Interim Governing Council insisted that as soon as possible the expertise necessary to run the training program should be phased into the universities so that the universities could develop the competence to maintain such a program after federal funding ran out. Considerable discussion was concentrated again on the nature of the level of training of the entering trainees. It was decided that a high level of training would be required on entry, similar to that of the person described in the simulation which was provided for the Interim Governing Council to read. The Interim Governing Council requested that if any other kind of trainee than the one described in the simulation were to be trained through this program, that a simulation of that type of person should also be provided.

At the November 3 meeting of the Interim Governing Council the final version of the official document forming the consortium was accepted. Then as a discussion of the budget breakouts began, and it was apparent that the overall staffing and organization of the training program was not clear to a number of the Interim Governing Council members. A lengthy presentation was made of this which enabled the Interim Governing Council members to understand the budget breakouts.

The production, in terms of trainee output, for the training program was regarded by the Interim Governing Council members as quite low, considering the cost, and they directed that a budget phasing simulation be presented which would demonstrate that by the end of the period of federal funding the cost per trainee would be down to a level within reason for the continuation of the program after federal funding. This was to be done by the next Interim Governing Council meeting. The design director requested agreement on two things: that during the initial year of the training program a single institution would serve as the administrative coordinating agency, and only after that time would the functions of the central administration be decentralized to the university sites. He also presented a rationale for two different kinds of trainees, generalists and specialists, and asked the Interim Governing Council to approve these as the two levels of training within Development and Evaluation. This was agreed to by the Interim Governing Council.

The November 15 report contained a virtually complete rough draft of the final report, including all of the decisions the Interim Governing Council had made, and all of the policy specifications, management and organizational plans and other work of the core design group. Much of the writing of this report and the final decisions on a number of points were made during a two-day retreat by the core design group after the November 3 meeting of the Interim Governing Council. Simultaneous with the November 3 meeting of the Interim Governing Council a number of working council members had met in an unofficial session and had also provided inputs. The November 15 report was the Preliminary Final Report.

The November 20 meeting of the Interim Governing Council concentrated on reacting to the November 15 report. A number of points of nonclarity were identified and a number of suggestions made for revising, reorganizing, and strengthening the final report. The major decision at that point was that the management of the training program during its initial year would use a task force concept of personnel from the three universities' sites, and that through that mechanism a large number of people at each university would be trained in the kinds of techniques involved in this training design and its implementation. This was accepted by the Interim Governing Council.

The last meeting of the Working Council and the Interim Governing Council was December 3 at Teaching Research. This was a lengthy and detailed critique of the Preliminary Final Report, the November 15 document, and the determination of a set of guidelines for preparing for a site visit should this design be one that is site-visited. The Interim Governing Council made four major decisions. It determined a way of combining roles in the staffing of the training program to cut the budget down to the limits stipulated by the Office of Education. It determined a procedure for making final selection of staff, if and when the training design is funded. It determined a procedure for making the final selection of the training sites from the seven members of the consortium, with the statement that selection would be made if and when the program was finally funded. Once the site and staff are selected, the final selection of training projects would take place. In all cases the Governing Council would make the final decision on the basis of inputs from the training program director. A copy of the Preliminary Final Report is Appendix D.

APPENDIX A

MINUTES OF THE MEETING OF THE INTERIM GOVERNING COUNCIL, OCTOBER 12, 1970, AT TEACHING RESEARCH, MONMOUTH, OREGON

PRESENT: James Beaird, Jerry Fletcher, Victor Doherty, Keith Goldhammer, Edward Seger, Dale Bolton, Robert Clemmer, William Loomis and Robert Gilberts

ABSENT: No institutions. Leo Meyers was represented by Loomis and Clemmer

A set of notes from a recent conference of Design Directors with Dr. John Egermeier, the Project Officer from Washington, D. C., was distributed, without discussion.

The first topic was to determine the membership of the Interim Governing Council. There was substantial discussion of the advisability of including on the Interim Governing Council a representative from the Community College network in the state, as this was the one class of institution which was not represented. A motion to include a representative of the Community College network was tabled on the grounds that at this stage in the development of the project their involvement was unnecessary. The group regarded itself as the Interim Governing Council and the assumption was that when the program actually became operational, they would be replaced by a Governing Council. At that time, assuming that the Community Colleges were involved in the training, the issue of their membership on the Governing Council would be resolved.

The group then formally decided to form itself as the Interim Governing Council and James Beaird was elected the chairman. Jerry Fletcher, the Design Project Director, was named the Chief Executive Officer of the Interim Governing Council, and it was agreed that agendas for all subsequent meetings would be prepared jointly by Jerry Fletcher and James Beaird.

James Beaird assumed the chairmanship and stated that the major issue before the Council was their working relationship as institutions, and the formation of a consortium. He further stated that this could not be addressed until there was a general consideration of the Training Model. He asked Jerry Fletcher to explain that Model.

At the conclusion of this explanation, the representatives of the institutions were asked to raise questions which would affect their commitment to the Model. James Beaird started by raising a number of issued, such as; What is the level of training of the trainees? For what roles they are being trained? What would be said to a trainee about what he would be able to do when he comes out? How much freedom will there be to negotiate within the prepared scheme?

Jerry Fletcher suggested that there were a couple of major implications of the model, and if the group understood these and felt their institutions could be committed anyhow, it would then be appropriate to move to more detailed issues. The major issues were: (1) the commitment of the Model to moving much of the instruction into a field setting; (2) the decision to go with a competency-based program, and (3) the focus on a project as the training setting. The representatives of several institutions stated, in reply, that the degree to which they could be committed to the general

Model depended upon how a number of the problems were worked out in actual operation. They felt their institution could be committed if.... Jerry Fletcher responded by requesting that he be given specific problems and charged to report back at the Interim Governing Council's next session with either preferred solutions, or alternative solutions, for these problems. He requested that the group regard its task as that of putting together solutions to the many problems which were acceptable to all of the institutions. In the course of the meeting all of the institutions expressed their support of the basic model, assuming satisfactory solutions could be worked out in the detailed problems of implementing the model.

The charges for the next meeting were determined by the Council: (1) An effort would be made to clarify who the Training Program would be concentrating on in the initial year of its operation, that is, what kind of trainees, with what kind of entering profiles, to be trained to do what. (2) A set of Model trainees and their progress through a training program would be simulated for the next meeting. From this simulation it should be possible to break out exactly what the commitments were that were required of the institutions, and exactly what the benefits to those institutions would be. From there it would be possible for an institution to assess its commitment to the Training Program. In particular, it was requested that the Core Design Staff make an estimate of the extent of the obligation required from each of the consortium institutions to implement with Training Program.

The next meeting is Friday, October 23, at 10:00 a.m. in the Northwest Regional Laboratory in Portland.

Respectfully submitted,

Jerry L. Fletcher

Dr. Jerry L. Fletcher
Chief Executive Officer to the
Interim Governing Council

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MINUTES OF THE MEETING OF THE INTERIM GOVERNING COUNCIL, OCTOBER 23, 1970, AT THE NORTHWEST REGIONAL EDUCATIONAL LABORATORY, PORTLAND, OREGON

PRESENT: James Beaird; Jerry Fletcher; Victor Doherty; Wayne Courtney and Shelby Price representing Keith Goldhammer; Frederic Giles; Robert Gilberts; William Loomis representing Leo Meyers; Lawrence Fish

ABSENT: No One.

The meeting began at 10:15. The minutes were accepted with one correction.

The meeting began with a discussion of a draft prepared by Beaird for outlining the purposed of the consortium. A number of changes were proposed in the draft, particularly in the need to clarify what the implications were of the universities taking over the training program after the period of federal sponsorship, and what this meant for the roles of the field training institutions. Several attempts at clarification were ordered incorporated into the document, in particular the statement that the intent of this training design is to develop a new pattern of training RDD&E personnel for education which is beyond that which now exists at universities, both in terms of the variety of types of training available and in the levels of training within RDD&E; and the notion that the role of the universities as eventual coordinators of the training programs is necessary to legitimize the programs, but that the role of the field institutions as the centers of much of the training activities and as strong influencing forces on the direction and nature of the training programs not be reduced or compromised. Beaird and Fletcher were directed to rewrite the document incorporating these changes, and the document was accepted pending incorporation of these changes.

The members of the Interim Governing Council strongly felt that the continued existence of the consortium after federal funding ran out was problematical at best, and that the guiding philosophy of the management of the training program, even during the period of federal funding, should be to prepare the training model to be taken over by each of the three separate universities in their own way. Fletcher argued that many of the aspects of the training model demanded that there be very close cooperation between the universities, sharing staff, exchanging trainees, and using each other's field training sites, and that these necessary close relationships might best be maintained by maintaining the consortium. The Interim Governing Council strongly felt that it was dangerous for the federally supported portion to rely on a consortium, for if the consortium could not be maintained, the training program might die after federal sponsorship ran out. The Council insisted that from the very beginning the training program be managed so that it might be taken over by each university in its own training programs. The Council felt that the necessary cooperation could be maintained without necessarily maintaining the consortium.

Another topic of major discussion was the nature of the trainees and the kinds of competencies for which they would be trained. Giles indicated that there would be major problems in the universities getting into short-term training programs, even if the instructional model would permit this, and he also felt that if the intent was to admit trainees at very low levels of competence, such as without a B.A., there would be problems with university sponsorship. Fletcher indicated that the decision had not yet been made with respect to levels of entry and exit competencies, largely because the training model seemed to be individualized to the extent that it potentially could handle any kind of trainee. He indicated that the plan was to carefully interview the heads of the various consortium institutions to determine their job openings and the minimum competencies needed for hiring for those job openings, and to use this survey as the basis for determining the initial training programs to implement.

The Interim Governing Council requested that the results of the job survey be reported back at the next meeting. They also requested that if the intent was to admit and train trainees other than the kind described in the simulation (Frank Farkel), that the training of these kinds of trainees also be simulated. It would be necessary to make decisions about consortium arrangements based on the types of trainees who would be admitted. It was made clear that at the beginning the trainees would enter with a rather high level of competence.

One final request was that a cost analysis would have to be done on the components of the training program to find out if the consortium institutions could afford to run the program after federal funding ran out, and the best question to ask would be whether the institutions would do the things demanded by the training model in the absence of federal funding. It was suggested that such support would be critical.

The meeting adjourned at 1:30 p.m.

Respectfully submitted,

Jerry L. Fletcher

Dr. Jerry L. Fletcher
Chief Executive Officer to the
Interim Governing Council

JLF:sp

MINUTES OF THE INTERIM GOVERNING COUNCIL, NOVEMBER 3, 1970 AT OREGON STATE UNIVERSITY, CORVALLIS, OREGON

PRESENT: James Beaird, Jerry Fletcher, Victor Doherty, Keith Goldhammer, Frederick Giles, Robert Gilberts, William Loomis, representing Leo Meyers, Lawrence Fish

ABSENT: No one

The meeting began at 10:45 a.m. The minutes of the previous meeting were accepted.

The first item on the agenda was a discussion of the revised version of the statement of the rationale for the consortium. After some discussion two points were ordered incorporated into the document: a rewording of a phrase so that it was clear that the staff of the training sites in the consortium was to be involved in the training of any trainees--not just university personnel; a statement that the decision on whether or not to continue the consortium after federal funding would be made based on the experience of running the training programs through the consortium during the years of federal funding.

There then began a discussion of the detailed budget break-outs which separated the developmental costs from the continuing or operating costs of each phase of the training program through the actual first year of operation. These budget figures and the categories of activity were based on the Frank Farkel simulation of the previous Interim Governing Council meeting.

It was soon apparent that the figures had been derived on the basis on a set of assumptions about staffing patterns, and about the number of trainees and staff who would be involved at each phase, and that these staffing patterns were not clear to many of the members of the Interim Governing Council. A lengthy explanation was then presented of the overall management framework, the staffing patterns anticipated, and the number and qualifications of the staff members at various levels. The large number of questions asked by the Interim Governing Council led to a request that for the next meeting a simulation of the probable nature of the involvement of each institution during the first year and for the subsequent years be developed which presented a clear picture of exactly what the institutions were agreeing to, if they agreed to implement the training programs. The critical thing would be the roles of the institutions and how these roles would change over time, particularly with reference to staffing of the training programs. Fletcher stated that such a simulation would be prepared for the next meeting.

A number of questions about the training program indicated the need to question the training model from a production standpoint, for ultimately the capacity to maintain the training program after federal funding was phased out would depend on the rate of production and the quality of production of the training programs; and that money would have to be found to cover the costs of maintaining such training programs, or they would simply cease to exist. Many federal programs have existed and done good things for short periods of time while federal funding was available and have died immediately once federal funding was withdrawn, because the programs were not conceivably operable within the budget limitations of state universities or other training stitutions. The Interim Governing Council insisted that the simulation, which would show the involvement of each of the institutions over time and how this involvement would change, would also be able to demonstrate that by the time that substantial federal funding was phasing out, other sources of support would be available which offered promise for maintaining the program. The two rules of thumb presented were that the universities receive one FTE for instruction for approximately 17 graduate students, and that the field institutions could be expected to pay an amount equal to the work the trainee would do while he was a resident at that site. For budget purposes we should assume that this would be the equivalent of a trainee's basic subsistence. It remains to be seen whether these two levels of funding can cover the anticipated cost of the training program after it is developed.

Doherty suggested that the establishment of the special training sites would be valuable for quite a large range of activities beyond those demanded by the particular training programs, such as for doctoral dissertations to be undertaken at these settings, and for some beginning level internships. He suggested that one idea which might be incorporated into the phasing plans for the programs would be to move to use the sites in additional ways beyond those required specifically by the training.

After lunch the discussion centered mainly on two things: Fletcher requested permission to simulate the involvement of the institutions over time in the running of the consortium by starting the initial year with a single central administrative institution at which virtually all of the functions would take place, and to show how over time the central administrative functions would be de-centralized into the university institutions or the site institutions. It was agreed that this would be a wise idea.

The last agenda item was a presentation by Beaird and Fletcher of a rationale for the training programs which would be undertaken initially. It was proposed that there be, in both the areas of development and evaluation, two separate training programs: one, a generalist training program, the other a specialist training program. A generalist would be trained to a high level across all eleven areas or functions within development or evaluation. He would be capable of independent judgment and action in the field and would probably enter with, and certainly leave with, at least a masters degree from one of the universities. A specialist would be trained roughly to the level of the generalist, but in only one, or two, or three functions of development and evaluation. The specialist would be at roughly the same level of competence as the generalist in a few competency areas. The generalist would be at that level of competence in all. A rationale was suggested which spoke to the need for both generalists and specialists and which tied the two together: generalists would be produced first and go into the field; over a period of time they would produce a need for specialists. It was agreed this was a powerful rationale to like the two training programs. This general rationale was approved by the Interim Governing Council, and Fletcher and Beaird were directed to write up a careful statement of it for the next Interim Governing Council meeting.

The next meeting will be Friday, November 20, at 2:00 at the Administration Building of the Portland Public Schools, 631 N. E. Clackamas Street, in Portland.

The meeting adjourned at 2:10.

Respectfully submitted,

Jerry L. Fletcher

Jerry L. Fletcher
Chief Executive Officer to the
Interim Governing Council

JLF/ib

MINUTES OF THE MEETING OF THE INTERIM GOVERNING COUNCIL, NOVEMBER 20, 1970, AT THE PORTLAND PUBLIC SCHOOLS

PRESENT: James Beaird, Jerry Fletcher, Victor Doherty, Gerald Becker for Keith Goldhammer, Lawrence Fish, Robert Gilberts, and Raymond Spaulding for Leo Meyers

ABSENT: Frederic Giles

The meeting began at approximately 2:30 p.m.

The entire meeting was devoted to a discussion of the Preliminary Final Report. A number of suggestions were made initially about format and organization, particularly with respect to the task breakouts and the competency profile section.

The discussion of the organizational chart for the training program caused a great deal of difficulty. Members of the Interim Governing Council interpreted the chart as evidence that the program would become a separate institution, independent of the universities, in direct opposition to the clear directive of the Interim Governing Council.

After considerable discussion Fletcher explained that this chart was for year one, that it merely illustrated logical groupings into roles of the functions which would have to be performed, and that the intent was to phase these functions into the universities during years two and three. Phasing charts, he indicated, would be included in the Final Report, and had not been included in this report due to limitations of time.

Gilberts asked how it was that universities were to develop the competence to run the program if the functions were performed initially at a central site. When it was explained that the positions from Training Site Coordinator on up were to be filled by university personnel who would in years two and three return to their campuses with the capacity to run the program, he suggested that a task force concept of management be used during year one to increase the level of training of each staff member. This was accepted by the Interim Governing Council.

The meeting adjourned at 4:30 p.m.

Respectfully submitted,

Jerry L. Fletcher

Jerry L. Fletcher
Chief Executive Officer to the
Interim Governing Council

JLF:fc

MINUTES OF THE IMTERIM GOVERNING COUNCIL MEETING DECEMBER 3, 1970 AT TEACHING RESEARCH

PRESENT: Ray Spalding, representing Leo Mayers, Robert Gilberts, Dale Bolton for Frederick Giles, James Beaird, Lawrence Fish, Victor Doherty, Jerry Fletcher

ABSENT: Keith Goldhammer

The meeting began at approximately 1:45 p.m.

The meeting concerned decisions which had to be made for the purpose of writing the final report, and in four areas decisions were made:

1. It was decided that in the final report five or six possible training sites would be named, and it would be clearly stated that three were ready to go, namely, the Portland Public Schools, Northwest Regional Educational Laboratory, and Teaching Research. During the tooling-up phase in the spring, the other members of the consortium would explore the possibilities of becoming training sites, and if during the spring one of the university sites or the State Department seemed better than one of the three which are now known to be ready to go, we could replace one of the three with the university site. The final selection will be made by the Governing Council in conjunction with the Training Program Director, after funding.

2. Once the training sites are selected, the head of that field institution will designate one person to negotiate with the Training Program personnel as to the particular training projects within the site which will be used. These will be approved by the Governing Council. For the purposes of the final report there will simply be a mention of some of the projects which are potential training projects.

3. The Interim Governing Council seemed to feel that their major personnel decision was the choice of the Program Director. He would then select his immediate staff with the help and advice of the Deans of the Universities in the consortium, subject to the approval of the Governing Council; and he would select the training site coordinators in conjunction with the directors of the field site institutions. In all cases the Training Program Director would make recommendations which would be finally approved by the Governing Council. For the purposes of the final report, each university will name, if possible, several people who have the qualifications for various roles, and it would be made clear that the final selection of personnel and the final approval of participation by the universities and the other members of the consortium would take place after the Federal Government has decided to fund this program.

4. In order to cut the budget it will be necessary to combine a number of the roles. The only place that the amount of money can be cut sufficiently is in the number of personnel. The Interim Governing Council suggested several alternate staffing patterns involving the combining of training site coordinators with instructional resource personnel and possibly the use of one training site coordinator across several sites,

and delegated the responsibility to Fletcher to come up with an alternate staffing plan that brought the budget down.

The meeting adjourned at approximately 3:30 p.m.

Respectfully submitted,

Jerry Fletcher

Jerry Fletcher
Chief Executive Officer to the
Interim Governing Council

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APPENDIX B

PROGRESS REPORT
Project No. 0-9037
Grant No. OEG-0-70-4977

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/ DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

Dr. Jerry L. Fletcher
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August 1, 1970

U. S. Department of
Health, Education, and Welfare
Office of Education
Research Training Branch
National Center for Educational Research and Development

INTRODUCTION

This is the report specified in the original RFP to be submitted August 1 by the projects to Design New Patterns for Training Research, Development, Demonstration/Dissemination and Evaluation Personnel in Education. This is submitted from Teaching Research, Monmouth, Oregon, by the Project No. 09037.

While the original RFP requested only a draft progress report on goal statements, staff, and facilities, this is a much longer and more comprehensive statement of the status of the project to date. As will be explained in the body of the report, we have established a close working relationship with the members of the Working Council. To maintain this relationship we need to provide periodic, comprehensive summaires to the members of the Working Council. We decided to use the occasion of the first government report as the impetus to produce a comprehensive report for the Working Council members.

We are not yet able to make a goal statement of the specific training programs which we will design. Since our proposal calls for a field-centered clinical model of training, much of the work of specification of that model had to be done before the selection of the specific training programs was appropriate. This was discussed with the Project Officer during the June 30 - July 1 conference in Washington, and it was agreed then that we could put off the selection of the specific training programs to be designed until September 1. This report, therefore, indicates our thinking to date about which programs to design and the specific steps by which we will make the decisions relative to the goal statement.

STAFF AND WORKING RELATIONSHIPS

The Core Design Group

The core design staff is that mentioned by name in the original proposal with one exception. Those who were mentioned are:

	FTE
Dr. Jerry L. Fletcher, Director	.50
Dr. Gerald L. Becker	.50
Dr. Michael Saslow	.50
Mr. Edward Tyler	.50
Mr. John Williamson	.50

Mr. Williamson was unable to join the project immediately. He will do so September 1, 1970, at .25 FTE. He will be writing his dissertation on an actual attempt to implement a model of clinical training, and the .25 FTE will permit the use of his findings and the input from his experiences to be used by the design group. His remaining .75 FTE is covered by a scholarship which only permits him to accept quarter-time outside employment. He has been associated with the project, though not directly responsible for tasks, since the project began.

All of the core design group members have indicated that they plan to be actively involved during the operational phase, if we are funded.

One additional change from the time the proposal was submitted: Dr. Saslow was appointed for his other half-time as Director of Teaching Research's RED TRAIN project, funded under EPDA, an ongoing field-based, competency-centered project for developing Research, Evaluation, and Development capabilities in school district personnel. This creates a direct link for information flow in both directions as to constraints and opportunities.

The Working Council

The first full Working Council meeting was held July 14 at Teaching Research. All members of the Working Council attended except two: one of whom was previously committed to consult at a national conference in Denver; the other of whom sent a substitute. Dates were established for additional full Working Council meetings:

Monday, August 24
Wednesday, September 30--Hold Date
Tuesday, November 3
Tuesday, November 24--Hold Date
Thursday, December 3

The morning of the meeting was spent in a general orientation to the project. The afternoon was spent in small working sessions. Plans were established for a number of additional individual sessions with members of the Working Council, which are now being completed by members of the Core Design Group. All of the Working Council members will be involved for at least five days individually.

The working sessions were most valuable. The focus was on determining a plan for accomplishing each of the major tasks. Most impressive was the commitment of the members of the Working Council to the design effort. They verbally committed themselves to do whatever was necessary to make the design one which could be funded, regardless of the amount of money in the budget to cover their consulting expenses.

The Working Council members will provide periodic review of all aspects of the design at the regularly scheduled full meetings. They will work additional days as consultants individually or in small groups with members of the core design staff. They are willing and expected to input substantially to the design.

DIVISION OF TASKS AMONG CORE DESIGN GROUP

The initial meeting of the Core Design Group was held on June 24. Previous to the meeting each member had familiarized himself with the original proposal and was prepared to align himself with project tasks in relation to individual strengths.

The total project was divided into three major project thrusts: The Project as a Project, The Project as a Training Context, and The Management of the Training Program. Core members attached themselves to one of the areas. Mike Saslow accepted the assignment of The Project as a Project with John Williamson tentatively assigned until associated directly with the Project; Jerry Fletcher and Jerry Becker accepted the assignment of The Project as a Training Context, and Edward Tyler accepted the Management of the Training Program.

Each thrust is interrelated and considerable cross-referencing is essential during their development. The Project as a Project conceptualizes what the design will be attempting to train people for, the Project as a Training Context formulates the training plan in a field centered, clinically oriented framework, and the Management of the Training Program identifies the organizational plan for handling all aspects of the program not related to the actual training procedures within a particular project. This thrust deals with all events prior to the assignment of a trainee to a project and his movement between projects as well as termination and placement.

To date each Core member has developed a plan of how he will proceed to accomplish his portion of the allocated design thrust. These plans include a detailed breakdown of the sub-tasks involved and time estimates for the completion of each sub-task (See Appendix A). Each of the major sub-tasks is listed in the pert chart included in Appendix B. These plans and their present stage of accomplishment are discussed in the following section of this report.

STATUS OF EACH PROJECT THRUST

Thrust I: The Project as a Project

The Project as a Project is intended to provide a description and analysis of what is done in Educational RDD&E projects in such a form that specific projects may be identified as training sites in order to develop selected trainee competencies within certain project roles and contexts.

Steps in the Development of the Project as a Project

The sub-tasks have been identified and scheduled. There are eleven sub-tasks, as follows: Detailed timetables have been prepared but are not presented in this narrative because of space limitations.

1.1 Description of a project as a series of problem-solving activities which give definition to the domain of educational RDD&E (First draft, July 31; Complete, August 24)

1.2 Specification of RDD&E in terms of the products which result from these project activities in an educational context (First draft, July 31; Complete, August 24)

1.3 Identification of general differences and similarities across and within educational RDD&E activities (First draft, July 31; Complete, August 24)

1.4 Identification of categories of problem-solving, product-oriented activities common to educational RDD&E (Second draft, July 7; Complete, September 4)

1.5 Identification of the competencies needed for the accomplishment of educational RDD&E as problem-solving, product-oriented activities (Rationale for order of proceeding among RDD&E, August 5; first area selected (R, D, D, or E) will have draft August 6, Complete September 10; Second area, draft August 10, Complete September 15; Third area, draft August 15, Complete September 25; Fourth area, draft August 20, Complete October 1)

1.6 Specification of a taxonomy of levels of competencies (Second draft, July 25; Complete, August 24)

1.7 Identification of the clusters of levels of competencies and RDD&E activities which define project roles (First draft, August 5; Complete, September 10)

1.8 Classification of the contexts within which the competencies are demonstrated (First draft, August 10; Complete, September 15)

1.9 Determination of terminal competencies in RDD&E for each project role, and specification of appropriate audiences (First draft, terminal competencies, September 15; complete, October 12; First draft, audiences, September 20; Complete, October 20)

1.10 Identification and classification of indicators which are acceptable as evidence of competence within specified contexts and roles, and to specified audiences (First draft, classification scheme, October 15; Complete, November 10; First draft, worked examples, October 30; Complete, November 25)

1.11 Identification, classification, and design of exemplary instruments to gather evidence of demonstrated competence within specified contexts and roles (Classification, October 30; First draft, Worked Examples, November 20; Complete, December 12)

All tasks are proceeding on schedule. Tasks 1.1, 1.2, and 1.3 have their first drafts; task 1.4 is on its way to its third draft, and has been extensively discussed with the Working Council; task 1.5 has emerged as the most difficult, and most complex task, has received the most attention, and has been planned and scheduled in the greatest detail; task 1.6 is essentially complete; tasks 1.7, 1.8, 1.9, 1.10, and 1.11 have been carefully examined and scheduled, and no major difficulties have surfaced. Preliminary products are available for tasks 1.1 - 1.6; initial statements are available for tasks 1.7 - 1.11.

The specification of the kinds of competencies required for educational RDD&E projects, task 1.5, seems to be the major problem facing this planning activitity, just as it is the major problem facing all the sponsors and clients of educational RDD&E and training. Although the notions of objectively specified criterion performances or products, and behavioral objectives, have achieved increasing currency in discussions of educational activities, it is the case that the issues of how these are to be aggregated and integrated into competencies, and what these competencies are named, and which are to be learned in what order for what purpose, have received very little serious attention. The term "competencies" is used with increasing frequency, but is seldom backed with specifications. The effectiveness and accountability of our proposed training center (or of any other training activity, present or future) would appear to be heavily dependent upon the quality of work done on task 1.5 or its equivalent. Fortunately, we start from the position of eighteen months experience in a field based EPDA project to train existing school personnel in educational research, evaluation, and development. This project has stimulated our appreciation of the need to break out competencies in an orderly, generalizable fashion which is relevant to the constraints and opportunities for the functioning of projects in context. We believe, and our consultants agree, that we are on the road to providing a classification of competencies which will have real power.

Thrust III: The Project as a Training Context

The development of the Project as a Training Context has been organized into nine major sub-tasks as described below. The major responsibility for formulation and development of these nine tasks is shared by Jerry Fletcher and Gerald Becker with the assistance and consultation of the Core Design staff and the Working Council.

Steps in the Development of the Project Training Context

3.1 The Conceptual Model and Specifications for the Operation of Directed Apprenticeships Written

3.2 Ongoing and uninitiated projects which are prospective training sites identified and described in detail (August 15)

3.3 Areas of focus of the training programs to be made operational selected (Roles, Settings, Competencies)

3.4 Agreements in principle for the establishment of the necessary components of the training programs made with selected projects and their directors (October 9)

3.5 The set of directed apprenticeships for each training project described in detail, so that apprenticeships add up to "roles" (October 23)

3.6 Prerequisite competencies for roles and projects determined (October 23)

3.7 Assessment procedures for determining entering competencies of prospective trainees specified

3.8 Procedures for placement--matching trainee entering competencies and training program goals with available training opportunities--determined

3.9 Orientation program for trainees, prior to clinical assignment, designed

Since much of the work of Thrust III, Project as a Training Context, depends on the completion of Thrust I, most of the effort to date has been spent on sub-tasks 3.1 and 3.2. It is the status of these two sections which is discussed below.

3.1 The Conceptual Model and Specifications for the Operation of Directed Apprenticeships

One way to develop a conceptual model of how a person will be trained is to imagine a trainee going through the program and attempt to describe what would happen along the way. The following narrative is a summary of such an attempt and indicates in outline our thoughts about how the notion of directed apprenticeships would operate.

Every project role for which there is a training program would have a set of terminal competency areas or characteristics which a trainee should attain. There would be a large set of such terminal competency areas, more than any one trainee would ever be expected to master. There would also be levels of competence associated with each competency area. The levels would be related to the amount of help a person would be allowed to have when attempting to demonstrate the competence.

To learn a particular competence, as well as to demonstrate it, a trainee would be assigned a task on a project. The task would be completed when the trainee produced a particular project. The successful completion of the task, or the successful production of the product would be defacto evidence that the trainee had attained the competence. The amount of help he received in completing the task would be a measure of his level of competence.

It is important to interpret the words "task" and "product" loosely. Essentially, the training director or project director will ask a trainee to do a task or job for which the trainee will need to develop the desired competence. The director will ask to see some evidence that the job was done. This evidence is the product. Once the product is produced it will be judged adequate or not utilizing instruments developed for that purpose. If it is adequate, the trainee will be considered to have the particular competence. His level of competence will be determined by a judgment of the amount of help he had in producing the product and the results of the product assessment. A task is simply the assignment to produce a product under a particular degree of supervision, or with a particular degree of help.

Each terminal characteristic of a training program would be matched with a set of tasks and products, the successful completion of which would be evidence of the attainment of the characteristic. Trainee competencies would be assessed upon entry in terms of tasks he either has done or could do and under what degree of supervision and help. He would then be presented with the total set of possible competencies and his own entering profile, and asked to indicate his desires for competency development and level of competency. Through a process of negotiation a trainee would agree to attempt to attain a new profile of competencies and levels. This profile would be judged as adequate for completion of the program, and training would commence.

It is assumed that there will be a flexible way of judging a trainee's proposed or negotiated profile. If the trainee chooses a broad range of competence areas, the levels of competence required in each area will be less than if the trainee only selects a few. There will probably be certain required areas developed at least to a minimum level.

Once the proposed profile is approved, the tasks which lead to the desired competencies will be matched with the tasks available in the training projects. The sets of tasks to be mastered will be arranged in an order that permits them to be accomplished in the required time, that does not conflict with logical development of a project, and that preserves logical order among tasks.

Simply assigning a trainee to a task does not guarantee that he can master it. Each task will have an associated content and method of instruction needed for its successful completion. The necessary instructional resources will be provided to each project at the appropriate time. The methods for assessment of the trainee's competence will be developed to determine the degree of mastery of each competency area and to provide data necessary for the next decision to be made in the trainees personal program.

Each of the aspects of the above rough conceptual model needs much greater specification. The outline of the sub-tasks for this specification is included in Appendix C.

3.2 Ongoing Projects Which are Prospective Training Sites Identified and described in Detail

An initial list of ongoing and uninitiated projects to be considered as prospective training sites is in the process of being obtained from members of the Working Council. Additional nominations will be secured from project directors through personal contacts and mailed questionnaires. Data to be obtained from project directors to describe in detail each project will be determined utilizing available references and materials recently developed by Teaching Research (USOE Project to Generate Information to Support Long Term Planning for Training Programs in Educational RDD&E) as critiqued by the Working Council and the Core Design Group. A draft of such a set of data has been developed. A format for the project description reports will be established and a questionnaire and an interview guide designed to secure project data. An introductory letter to project directors will accompany the questionnaire in the initial mailing. Drafts of such a questionnaire and letter are presently available.

A sample of existing projects will be drawn from the total list of nominations for on-site visitation with project directors. An interview procedure will be followed in gathering detailed information for each project selected. Upon completion of the on-site interviews descriptive reports will be written for each project visited. These reports will provide the necessary data for the formulation of the directed apprenticeships for each role, and for the establishment of training projects and training sites which provide the necessary range of tasks for the maintenance of the training programs.

Thrust IV: Management of the Prototype Training Program

Seven major steps in the development of the management portion of the Prototype Training Program have been identified below and graphically displayed in the PERT chart in the section, Major Project Thrusts, contained elsewhere in this report. This identification and the discussion which follows is the major responsibility of the Core Design Staff member, Edward Tyler, who depended greatly upon the suggestions resulting from several meetings of the Core Design Staff, one full day meeting with members of the Working Council and a private session of one-half day each with Working Council members Dr. Ed Seger (Northwest Regional Educational Laboratory) and Dr. Dale Bolton (University of Washington). Future appointments with these and other members of the Working Council are scheduled.

Steps in the Development of the Management System

4.3 Management OPERATIONAL LEVELS specified

4.4 Managment POSITIONS relative to each operational level specified

4.1 Management TASKS relative to each operational level/position specified

4.2 Management PROCEDURES AND TIME SEQUENCE required to accomplish each task specified

4.5 Management DECISIONAL INFLUENCE FUNCTIONS exercised at each operational level and by each position identified

4.6 Management RESPONSIBILITIES for task accomplishment exercised at each operational level and by each position suggested

The above tasks have two major foci. Management tasks (or goals) and the related enabling mechanisms are dealt with in items 4.1 and 4.2. The remaining items (4.3 - 4.6) speak to the question of who will be involved and the roles each will play.

The target dates for completion of the steps indicate the proposed sequence of accomplishment. An interrelationship with other phases of the design effort is essential. Indeed, more cross-referencing is anticipated than is actually illustrated in the network flow chart. This is an ongoing by-product of frequent meetings of the Core Design Staff whose members have specific responsibilities for various program design components. Additional referencing opportunities are available at the periodic meetings of the Working Council.

Now to a more detailed examination of where we are in each of the above steps in the development of the management program: The discussion which follows is tentative and reflects the early stage in the design process at the date of this writing. As a convenience, the seven steps will be discussed in the order of their completion date.

4.3 Management Operational Levels Specified (August 9)

The Project Proposal suggests that management would be expected to function at various operational levels. Four levels are identified in Figure 1 (See following page): Management at the level of the over-all training program; Management at the level of the training site(s); Management at the level of the training project(s) within site(s); and management at the level of the training role(s) (or trainees) operating within projects. The fact that non-training roles will also exist within a given project is also recognized. For that matter, certainly non-training projects will also exist within sites.

The linkages anticipated within and between various levels should be seen as non-hierarchical. The notion of a hierarchical structure is inappropriate, given the nature of the Project's goals requiring much anticipated cooperation in task execution and responsibility at frequent decision points. To illustrate, a sectional view of one site, project, and role within the Program might be displayed as shown below with information and responsibility flows of various intensity among the levels and each level performing management tasks, some of which are shared while others are autonomous.

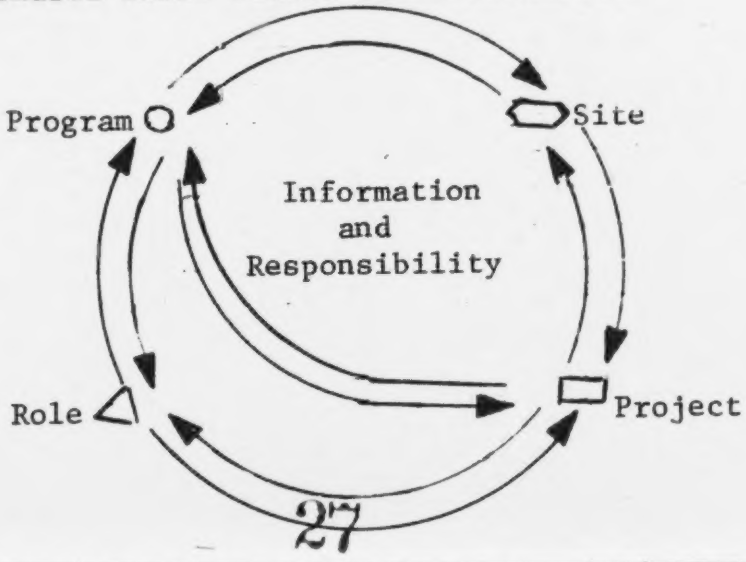
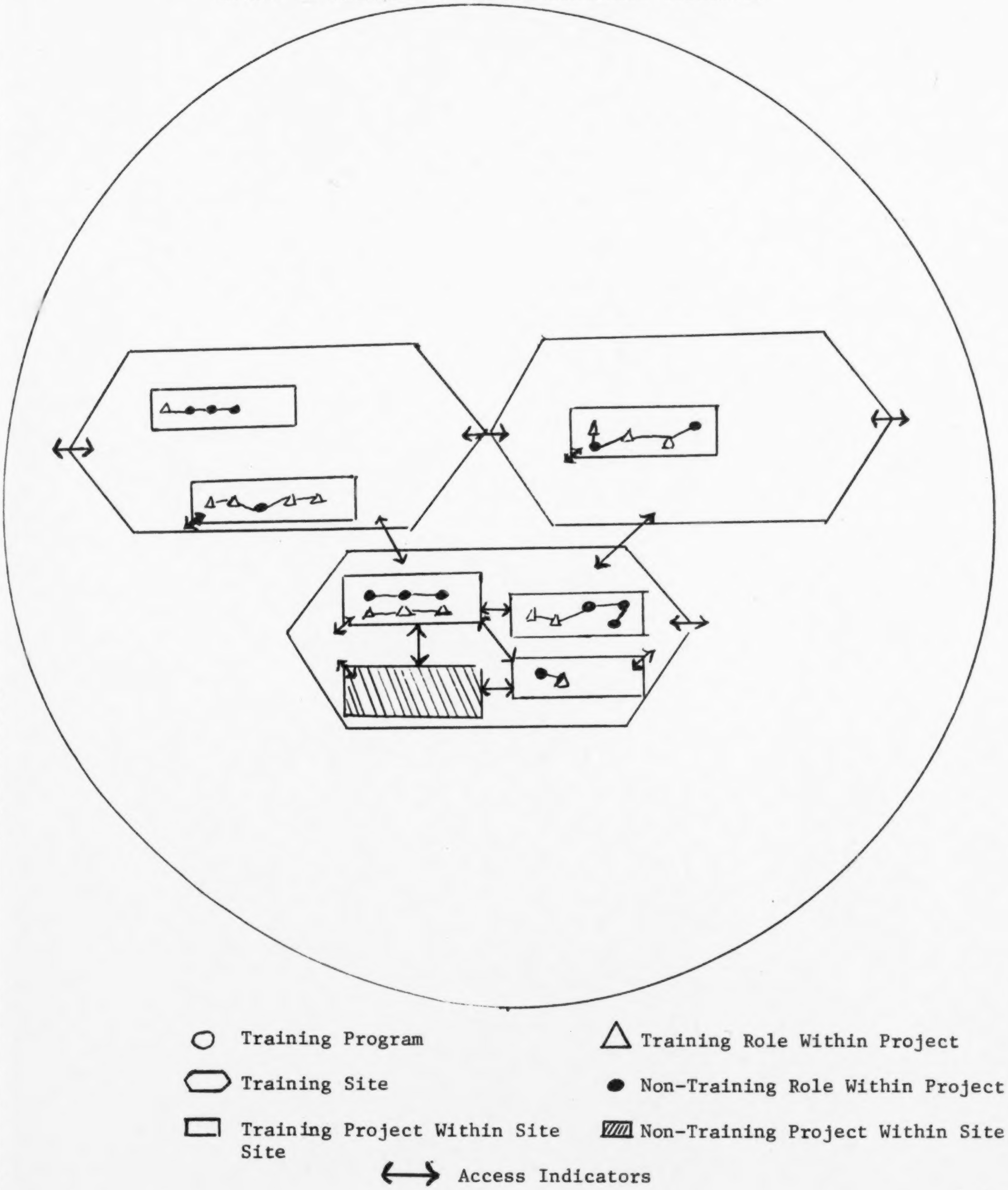


FIGURE 1

Levels of Management and Relationships Specified


○ Training Program
⬭ Training Site
▭ Training Project Within Site Site
△ Training Role Within Project
● Non-Training Role Within Project
▨ Non-Training Project Within Site
⟷ Access Indicators

4.4 Management Positions Relative to Each Operational Level Specified (August 12)

There will exist at each management level management positions which must be identified.

At the role level the trainee will perform such management functions as giving and receiving information of various types, and participatory management in the areas of making certain decisions concerning his assignment, training, termination, placement, etc.

At the project level a project manager or director will have responsibility for several aspects of the ongoing training program.

At the site level perhaps a coordinator will, among other tasks, facilitate the allocation of needed resources to project operation.

At the program level perhaps a monitor will perform tasks appropriate to over-all program management performance.

Work remains to be done in identifying management positions which will function in the program's operation. Institutional considerations at the site may very well dictate the identity of site and project management positions and the early identification of the specific person filling the position. Undoubtedly, designations by title will vary among host institutional sites.

4.1 Management Tasks Relative to Each Operational Level/Position Specified (October 30)

The specifying of management tasks is a critical step in the process of developing the management system. Although one might start with recognized categories such as "planning", "evaluating", etc., it is perhaps more productive to strive for specificity and then create the appropriate categorical holders.

To accomplish this end one may infer tasks from what is known about the design project as outlined in the Proposal. Certainly some obvious tasks include selection of trainees, selection of sites, etc. Inferences such as these will be made during the next weeks and prepared as specific tasks.

Another assist in specific task building is the collection of indicators which arise during the development of other complimentary project design phases. 4.1 will receive input from the design tasks 1 and 3, as indicated in the PERT chart.

4.2 Management Procedures and Time Sequence Required to Accomplish Each Task Specified (November 6)

With the specification of tasks implementing procedures, in time sequence, will be prepared in flow chart form in general overview supported by specific detail breakout. Flow charts will be further supported by appropriate narrative, including any instrumentation developed.

4.5 Management Decisional Influence Functions Exercised at Each Operational Level and By Each Position Identified (November 9)

The nature of anticipated task decisions required in the successful operation of the Prototype Training Program indicates the need for careful specification of the decisional influence functions the various cooperating management positions will perform. A position in any structure or combination of structures may exercise various types of influence on decision making and it is best to specify these types of participation at the formative stage and then attach the element of responsibility to these understood decisional functions. This appears particularly crucial given the organization of our program where levels of cooperative management represent a consortium of institutions and individuals who are asked to a degree to step out of their existing organizational structures to cooperate at many (perhaps new) levels.

The work of John Wallen[1] would appear to offer power in partially accomplishing the task of both 4.5 and, particularly, 4.6 (the suggestion of responsibility designations). Wallen suggests a charting procedure suitable for showing the decision making structure of work unit or the structure of a number of interrelated work units.

For purposes of 4.5, his treatment of positional influence on decision making suggests the following functions: "may recommend or suggest," "must be informed," "must be consulted," "approval must be secured," "may authorize."

If we add to Wallen's list some action functions such as, "must provide information," "must receive information," "must collect and/or process information," and "must perform tasks," then we have a collection of functions which may be coded and related to management tasks to be performed. These functions can be paired with responsibility by assigning them to management levels and, ultimately, specified positions and their occupants.

A test of the "fit" of Wallen's items and our additions with identified tasks will be made to verify the suspected utility of this approach.

4.6 Management Responsibilities for Task Accomplishment Exercised at Each Operational Level and by Each Position Suggested (November 12)

In determining suggested responsibility, the word "suggested" is intentional for a goal of this design project is to specify procedures which may be generalized to any training project activity. We do not wish to superimpose the responsibility structure. Indeed, as Wallen indicates:

> A decision making chart cannot be imposed successfully on an organization by command; it should be developed by the people who work together. In doing this...(1) decide the area of decision making to be charted, (2) determine the key decisions, (3) title the columns in the chart, (4) decide how each position participates in each decision, (5) record agreements on the chart (revise periodically as indicated)

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[1] Wallen, John. Charting the Decision Making Structure of an Organization. Portland, Oregon: Northwest Regional Educational Laboratory, 1970.

However, we must insist that one be developed before the training program is implemented, and we can superimpose a framework for developing the responsibility structure.

As a suggested model, code letters may be attached to the functions identified in 4.5, above, and this symbol (or combination of symbols) entered in the appropriate cell at the intersection of a particular task and a management level position. In this manner it is clearly agreed which management level has what functions to perform in the execution of decisional tasks.

Continual review of the management system's development will continue throughout the design phase. The above paragraphs indicate our thinking and approaches to date.

ISSUES

In our work so far a number of issues or problems seem apparent. These are problems which we have not yet resolved, but which we have defined and thought about extensively. In most cases it is critical that they be resolved. We have indicated below the problems and our thinking on them, as a way of facilitating a breakthrough.

Appropriate Sites for Training: Tentative Criteria

If a clinical training model is to produce adaptable generalists rather than dependent specialists, the field experiences of each trainee must be varied in terms of such dimensions as RDD&E product focus; types of competencies required; project roles; and project contexts. It is not likely that any single project will provide all of the things that any given trainee needs. On the other hand, distances are large in the Northwest, which means that moving trainees about from site to site is cumbersome (although, to some extent, it will have to be done). Given these considerations, the question of what is an acceptable project for training, and the question of what is an acceptable site for training becomes critical.

An acceptable site might be identified by criteria such as these:

1. Does it have "enough" projects?
2. Does it expose trainees to the breadth and interactions of RDD&E?
3. Is the staff differentiated and heterogeneous as to functions and interests?
4. Is the staff large enough to provide exposure to various kinds of interpersonal, management, and inter-institutional interactions and relationships?
5. Do staff have clearly in mind what difference the project(s) will make; is (are) the projects oriented toward accountable change, with specifiable consequences?
6. From the perspective of those involved, will the project(s) have high impact?
7. From outside perspectives, will the project(s) have high impact?

We recognize that these are tentative criteria and that greater specificity and definition will be required before we arrive at an operational array.

Duration and Focus of Training: Tentative Criteria

Training for educational RDD&E can be classified into a matrix with the dimensions "long term" vs "short term" and "R," "D," "D," "E". We have been asked by the sponsoring agency to indicate by September 1, 1970, which of the eight cells so defined we would propose to occupy, and to indicate by August 1, 1970, what criteria we propose to use to make this decision.

We propose to develop criteria on the basis of (a) a commitment to a clinical training approach, and (b) an obligation to give priority to the more crtical kinds of educational RDD&E products in terms of present and anticipated regional and national needs. The "long term" vs "short term" decision is readily made, given the commitment to clinical training. A period of the order of six months or more would be required to provide the breadth and variety of training experiences which we would see as appropriate and important. For this reason we see ourselves designing long-term training programs.

The decision about which foci (RDD or E) to emphasize is a more complicated decision. The foci may be artificially isolated, for conceptual purposes, to be sure, but in reality, the distinctions are fuzzy. We have moved to considering a project as having primarily an RDD or E focus, not an individual, and yet still the distinctions are not pure; projects are seldom "pure" RDD or E. As a practical matter, to start with training projects of two or three foci and to phase-in one additional focus at a time would make good management sense.

Clinical training for broadly defined project roles, as we have conceived it, may be more appropriate in "mixed" rather than "pure" projects. If, after discussions with the Working Council, and consultation with the literature, this seems to be a correct understanding, our probable foci would probably be Development and Evaluation. However, that kind of abstract conclusion would need to be heavily tempered with such considerations as:

1. National needs, now and anticipated
2. Regional needs, now and anticipated
3. Availability of appropriate projects and sites (see discussion elsewhere in this report)
4. Quality of training settings
5. Interest in, and ability to help with, training, on the part of project/site staffs
6. Training resources of the consortium institutions; extent to which competencies in RDD&E are adequately specified
7. National level state-of-the-art in training materials and procedures
8. Extent to which projects with a major product focus on Development or Evaluation incorporate minor foci in the other areas of RDD&E; extent to which projects with a major product focus on Research or Dissemination do so
9. Extent to which there will be demand for and support of educational R in the next decade, and extent of knowledge about how to train for it (materials, procedures, settings)
10. Extent to which dissemination is conceived of as
    a. An ongoing institutionalized function, rather than a project function
    b. A part of a role definition for a person, rather than a role in itself
    c. An integral part and responsibility of research, development, and evaluation, rather than a separable focus

Types of Roles: Alternative Concepts

The clinical training model as we have conceived it is well matched to the differentiated staffing characteristic of the kinds of projects which we see as good training sites. However, a decision will need to be made about the *form* of differentiated staffing for which we should be preparing trainees. Commonly, differentiated staffing is of the "dead-end jobs" variety. An individual is narrowly trained and can progress no further. This feature has, in our view, constrained rather than facilitated rapid adaptation of the educational system. A way must be provided for an individual to move from one level of a differentiated staffing model to another. A career development or "new careers" form of differentiated staffing seems critical. Classically, clinical training in the health area has been for a dead-end concept. However, it has been used with great success in the health area for a "new careers" concept, and should be equally fruitful for education, because all members of a differentiated team can be learning new competencies and relationships while working together. In fact, to train individuals for a dead-end or isolated jobs is something of a perversion of a real commitment to clinical training.

The implications of the position which we choose with respect to these issues, for appropriate training projects and sites, and for defining the clusters of competencies which define the roles for which we will train, are strong and important. The decision will need to take into account national needs, availability of appropriate sites, ease of convertibility of other sites into appropriate sites, resources of the consortium, and other factors identified in discussions elsewhere in this report covering duration and focus of training and appropriate sites for training.

APPENDIX A

Major Project Thrusts

Thrust I

The Project As A Project--Major Tasks

August 17	1.1	Completion of Description of a Project as a Series of Problem-Solving Activities which Give Definition to the Domain of Educational RDD&E
August 24	1.2	Specification of RDD&E in terms of the Products which Result From these Project activities in an Educational Context
August 24	1.3	Identification of General Differences and Similarities Across and Within Educational RDD&E Activities
September 5	1.4	Identification of Categories of Problem-Solving, Product-Oriented Activities Common to Educational RDD&E
October 1	1.5	Identification of the Competencies Needed for the Accomplishment of Educational RDD&E as Problem-Solving, Product-Oriented Activities
August 24	1.6	Specification of a Taxonomy of Levels of Competencies
September 10	1.7	Identification of the Clusters of Levels of Competencies and RDD&E Activities Which Define Project Roles
September 15	1.8	Classification of the Contexts Within Which the Competencies are Demonstrated
October 20	1.9	Determination of Terminal Competencies in RDD&E for Each Project Role, and Specification of Appropriate Audiences
November 5	1.10	Identification and Classification of Indicators Which Are Acceptable as Evidence of Competence Within Specified Contexts and Roles, and to Specified Audiences
November 15	1.11	Identification, Classification, and Design of Exemplary Instruments to Gather Evidence of Demonstrated Competence Within Specified Contexts and Roles

Thrust III

The Project As A Training Context--Major Tasks

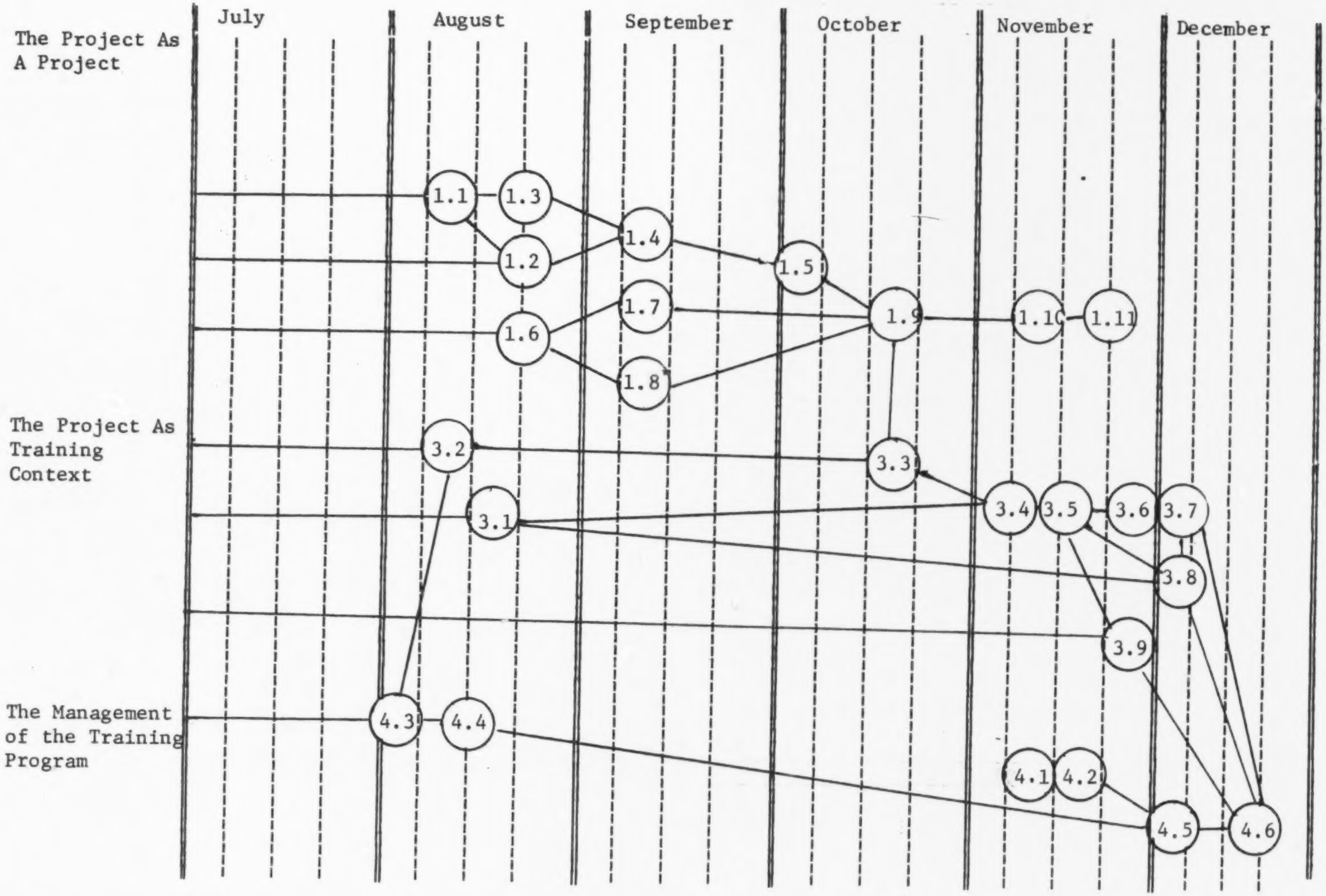
August 24	3.1	The Conceptual Model and Specifications for the Operation of Directed Apprenticeships Written
August 15	3.2	On-Going Projects Which are Prospective Training Sites Identified and Described in Detail
October 20	3.3	Areas of Focus of the Training Programs to be Made Operational Selected (Roles, Settings, Competencies)
November 5	3.4	Agreements in Principle for the Establishment of the Necessary Components of the Training Programs Made With Selected Projects and Their Directors
November 10	3.5	The Set of Directed Apprenticeships for each Training Project Described in Detail, so that Apprenticeships Add Up to "Roles"
November 20	3.6	Prerequisite Competencies for Roles and Projects Determined
December 3	3.7	Assessment Procedures for Determining Entering Competencies of Prospective Trainees Specified
December 3	3.8	Procedures for Placement--Matching Trainee Entering Competencies and Training Program Goals with Available Training Opportunities--Determined
November 25	3.9	Orientation Program for Trainees, Prior to Clinical Assignment, Designed

Thrust IV

The Management of the Training Program--Major Tasks

November 10	4.1	Management Tasks Relative to Each Operational Level/Position
November 13	4.2	Management Procedures and Time Sequence Required to Accomplish Each Task
August 5	4.3	Management Operational Levels
August 12	4.4	Management Positions Relative to each Operational Level
December 1	4.5	Management Decisional Influence Functions Exercised at Each Operational Level and By Each Position
December 12	4.6	Management Responsibilities for Task Accomplishment Exercised at Each Operational Level and by Each Position

APPENDIX B
PERT CHART OF MAJOR SUB-TASKS


July
August
September
October
November
December
The Project As A Project
The Project As Training Context
The Management of the Training Program
1.1
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APPENDIX C

PROGRESS REPORT
Project No. 0-9037
Grant No. OEG-0-70-4977

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/ DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

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Monmouth, Oregon 97361

September 1, 1970

U. S. Department of
Health, Education, and Welfare
Office of Education
Research Training Branch
National Center for Educational Research and Development

Introduction

This is the report specified in the original RFP to be submitted September 1 by the projects to Design New Patterns for Training Research, Development, Demonstration/Dissemination and Evaluation Personnel in Education. This is submitted from Teaching Research, Monmouth, Oregon, by the Project No. 09037.

As was mentioned in the August 1 report, maintaining close communications with the Working Council demands that periodic comprehensive summaries of the status of our work be made available to them, as well as to the Office of Education. Again we have decided to use the required September 1 government report as the impetus to produce a comprehensive report for Working Council members.

Staff and Working Relationships

The Core Design Group

The core design staff is now:

	FTE
Dr. Jerry L. Fletcher, Director	.50
Dr. Gerald L. Becker	.50
Dr. Michael Saslow	.50
Dr. F. Leon Paulson	.50
Mr. Edward Tyler	.50
Mr. John Williamson	.25

Mr. Williamson joined the project on September 1, as expected. He will be doing his doctoral research in an actual attempt to implement a model of clinical training similar to that being designed in this project. The findings generated from this pilot attempt will be integrated into the design this project is developing.

From the beginning of the project one of the core design slots was unfilled, in addition to the slot created by Mr. Williamson's inability to join the project immediately. This slot also has now been filled by Dr. Leon Paulson. Dr. Paulson received his Ph.D. from Stanford in Educational Psychology in 1969. His specialties include the measurement of behavior in context. On this project he will work particularly on the development of techniques and instruments for the measurement of a trainee's competency in on-going project settings. His other half-time is as director of a project to evaluate the effects of the Sesame Street Television series on young children by the use of situational response testing.

The Working Council

The second meeting of the full Working Council was held August 24 at Teaching Research, Monmouth. The meeting was attended by all but three of the Working Council members, two of whom sent substitutes. Four two-hour working sessions were held, with members of the Working Council providing inputs and criticisms of a huge battery of documents developed by the core staff for the working sessions. (see appendices) In addition, a number of individual days of consultation were held with members of the Working Council during the month of August, despite the fact that many were on vacation. The next Working Council session is September 30.

The remainder of the report contains a summary of the status of each project thrust, as amplified and clarified by the Working Council session on August 24. A number of problems are raised, a number of decisions that we have made are discussed and defended, and where possible we have indicated the nature of the products which we expect to include as part of the final design proposal submitted on December 18.

The Selection of the Substantive Areas Within Which to Design the Training Programs

As was indicated in the August 1 report, the demands of the clinical model for training are such that only longer term training programs of six months to two or three years are appropriate. We indicated, however, that we were unable to determine at that time whether we would be designing a program to train researchers, evaluators, developers, or disseminators; or indeed, whether these categories were at all appropriate given that we initially decided that we would train people to operate in projects, and it is not entirely clear that these labels apply to individuals who are part of a project team.

After careful and lengthy discussion with the Working Council at the August 24 meeting, we selected Evaluation and Development competencies as the primary foci for the training programs we would design, at least for the first operational year. Diffusion was seen as a critical function, especially in the sparsely settled regions of the Northwest, but a sufficient number of questions remained unclarified to preclude its selection as a primary focus; for example, it is not clear whether diffusion should be performed by developers or by diffusers; it is not clear whether it should operate on a project basis, or on some larger institution basis. We therefore decided, as the Working Council advised, to delay planning to train "pure" diffusion personnel and to instead identify key competencies of diffusion and integrate them into the Evaluation and Development training programs in a small, selective way.

With respect to the training of "pure" research personnel, the position which emerged was that research training in a clinical training framework would produce personnel of a different cast from those produced in the classical, more abstractly oriented academic setting. However, it is not clear what the immediate payoff to educational improvement of such personnel would be. Neither is it yet clear how many individuals trained in each way would best meet the long-range need for quality basic research in education which is not now being met by the products of conventional educational research and educational psychology programs. Given these ambiquities, and given the anticipated relatively low level of funding for educational research in the next few years, we decided, as advised, to delay planning to train "pure" research personnel, but to identify key research competencies involved in all areas (RDDE), and to integrate these selectively into the Evaluation and Development Training Programs.

Why the selection of Evaluation and Development competencies as the foci for the training programs to be made operational? After substantial discussion with the Working Council memebers, it became apparent that the available training settings, the interest and the ability of the staff in various possible training sites, and the arrays of training resources of the consortium institutions were consistent with this dual emphasis.

Among the specific reasons for an emphasis on Development were:

1. The "interdisciplinary" nature and team quality of development projects requiring competencies across the areas of RDD&E, make development projects ideal training sites and appropriate contexts in which to employ the clinical, field-centered notions of training.
2. Development is presently perceived as a high priority need, nationally and regionally.
3. The focus of the Northwest Regional Educational Laboratory is development, and it has many projects available as training sites.
4. Work in instructional systems, simulation and gaming, and situational assessment at Teaching Research has laid a foundation for the specification of competencies in Development, and the development of materials and procedures to train individuals in those competencies.
5. There is a likely interaction between evaluation and development, so that as the quality of evaluation projects increases, there will be an increasing demand for development specialists who can take the evaluation data and recycle the findings into improved products. Development training programs should run simultaneous with Evaluation training programs.

Among the specific reasons for an emphasis on Evaluation were:

1. The high and increasing national and regional demand for evaluation, both from political and professional sources.
2. The wide availability of on-going evaluation projects in the region for use as training sites, particularly within the Portland Public Schools and within Teaching Research.
3. The intensive, more narrow, and fairly structured content and atmosphere of evaluation activities, as contrasted with development activities, provides both a different forum for the use of the clinical model and increases the likelihood of exposing trainees to a diversity of project structures.
4. The Evaluation Training Materials project at Teaching Research has made substantial progress in specifying evaluation competencies, producing training materials and training procedures for these competencies, and implementing evaluation training.

5. Effective work in all areas of educational RDD&E will require competencies in management monitoring and measurement of impact, both of which are usually classified under evaluation competencies.

For the general and specific reasons given above, we have selected Evaluation and Development as the two foci for the training programs which we are designing.

The Status of Each Project Thrust

(Note: In the original proposal there were four project thrusts identified. The staff became in the habit of referring to a particular set of design tasks by their numbers. After some time, however, it became apparent that the design tasks under Thrust II should be incorporated under Thrusts I and III. Rather than change the numbers of the tasks, we simply eliminated Thrust II. There is no Thrust II in the project any longer.)

Thrust I: The Project as a Project

The objective of Thrust I is to provide an analytic description of the kinds of competencies required for successful performance in educational RDD&E projects, in such a form that trainees may be prepared to perform these competencies within certain project roles and contexts.

Categories of RDDE Competencies, in Terms of Products

Description of a Project

This design project started from the notion that a project as a problem-solving entity is becoming more and more the problem-solving entity of our society, and rather than train individuals to perform RDD&E, it would be much more sensible to train project team members in a way that the team can perform RDD&E.

A project is a collaboration of personnel and institutional resources organized to produce a product in a given amount of time, where the product is a solution to some identified problem. A program is a set of coordinated projects in a particular area of concern. Projects and programs take place in the context of institutions.

Specification of RDDE in Terms of Their Products

A product is one of the following entities, in a form which may be transported and/or communicated from a project:

Area of Activity	Resultant Products
Research (generation of generalizable knowledge)	Knowledge, which consists of facts, constructs, concepts, laws, and theories that can be judged on the basis of the procedures used in their generation and various tests of empirical verification

Development (production of reliable technology)	Technology, which consists of procedures, materials, hardware, and organizational frameworks that have a known degree of success in bringing about a particular outcome or in carrying out a given operation.
Evaluation (generation of trustworthy information)	Information, which consists of data that facilitates decision-making in a specific context and that can be judged on the basis of the procedures used in its generation and analysis.
Diffusion (institution of successful linkage mechanisms)	Linkage mechanisms, which consist of procedures and resources which transmit and apply knowledge, technology, and information and that can be judged on the basis of product adoption and/or utilization.

An analysis of RDD&E as Problem-Solving Activities

As a practical matter, a classification of specific competencies in educational RDD&E, if it is to be useful for training, must have some kind of efficient, logical organization by cross-classifications which will

1. be exhaustive
2. illustrate parallel competencies among RDD&E
3. identify competencies which are specific to RDD or E

The approach which we have taken in order to produce a classification scheme which meets these criteria is based on the observation that educational RDD & E are all examples of problem-solving activities. One dimension of a competency matrix then becomes a set of stages or steps of problem-solving. The other dimension becomes educational RDD & E. The boxes become filled with specific RDD & E competencies. The application of the categories to educational RDD & E will, if the set of problem-solving steps defined is useful, result in a classification of competencies which meets the criteria given in the preceding paragraph.

The set of categories into which we have tentatively clustered problem-solving activities in general is a set similar to that which one uses in communicating about a project, when, for example, writing a proposal for a project or a report about a project. The categories have been compared to various alternative structures, in the literature or otherwise known to us, and appear to be consistent with the categories of most of these sources. It should be understood that the order of the categories is the order common in many proposals and reports, but it does not necessarily signify that in planning, implementing, or evaluating a project, one plans or executes the activities in the particular order used here, nor does one necessarily plan or execute them one at a time.

The set of categories is given below. Detailed definitions and sub-categories are being prepared and applied to RDD & E activities and competencies.

Ten Categories of Problem-Solving Activities

1. Establishment of Goals
   (Identification of the problem, specification of the product, initiation of the project)

2. Examination of the Setting
   (Determination of relevant on and off-site needs, specification of accountability relationships, identification of implicit value positions)

3. Selection of a Plan
   (Sketch alternate approaches, predict likelihood of success)

4. Identification of Resources and Initial or Foundation Products
   (Materials, procedures, information, personnel, review of literature, gatering of prototypes, gathering of relevant instruments)

5. Data Collection

6. Data Organization, Conversion, and Analysis

7. Interpretation

8. Creation of Intermediate and Final Products

9. Distribution, Communication, Transportation of Products

10. Management
    (Organization, staffing, monitoring and supervision)

The list of categories may be used to form the side axis of a table, of which the upper axis is formed by the acrhetypical products of RDD & E: generalizable knowledge, reliable technology, successful linkages, and trustworthy information for decision-making in context. Each of the 10 x 4, or 40, cells so specified by these axis, is designated as an "area of competence." Each cell, or area of competence, will contain a series of competencies and sub-competencies, and under each of these would be sets of particular tasks and products which would lead to each of them.

We anticipate that any particular set of cells, such as the "goals" cells, would have some repetition of competencies. The ones on the goals for Research, Development, and Diffusion, for example, would contain some of the same items as the goals cell for Evaluation (although perhaps different in emphasis) and some different, product-specific items. Such a result helps specify what things a trainee will have to do, given an initial array of skills, and what things he will not have to repeat, in order to reach a given target array of skills.

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Thrust III: The Project as a Training Context/Concept

The Dimensions of a Project Experience Relevant to Training

In a discussion with members of the Working Council about the characteristics which a good traineeship should have, we agreed that the nature of the conditions under which we might want to place a trainee depends greatly on what it is we want the trainee to gain from the experience.

We therefore, resolved to agree on dimensions along which various training or project experiences could differ. Once we agreed on a set of dimensions which were relevant to training, we would try to define the dimension, describing what kind of experience would be good for what kind of trainee and training objective. Then we would attempt to determine kinds of data which could be gathered from on-site visits which would enable us to rate a particular project or site and its available experiences in terms of the dimensions. The profile of a project or a site would be used in the placement of trainees.

We have, at this point, made only an initial determination of the categories of data about projects which we will need, with some indication of the types of dimensions or sub-parts within each category. This is given below. We will proceed from this point to determine dimensions within each category, and to develop procedures for gathering data from each project/site which will give us a profile of the project and the site, if appropriate, along the dimensions.

There appear to be two broad classifications of information we need from the field:

1. Information relevant to the site	vs.	Information relevant to the projects in the site
2. Information on the quality of the projects/site	vs.	Information on the quality of the people in the projects/site

We have not attempted to group the categories below into these classifications, but we shall shortly.

Categories of Information	Possible Dimensions
1. Excellence of the Work	(In good shape vs. in trouble)
2. Nature of the Objectives	(Clear and measurable vs. unclear, or undetermined)
3. Stability of the Project	(Able to predict with certainty roles, tasks, timelines, relationships, and continued funding vs. Continual restructuring, continual disruption due to intervention of crises)
4. Complexity of the Project	(No. of people; variety of interpersonal management and inter-institutional relationships; breadth of RDD & E; interactions of RDD & E)

5. Nature of the Staffing	(Differentiated/hierarchical vs. Differentiated/horizontal)
6. Decision-making Procedures	(Staff involved vs. made by director Delegated responsibility vs. all responsibility vs. all responsibility held by director)
7. Quality of the Plan for Accomplishing the Work	(PERT chart vs. no systematic plan)
8. Availability and Use of Resources	(Staff training mechanisms; Library)
9. Educational Importance and Expected Impact of the Project	(High vs. Low as seen by those Outside the project vs. those Inside)
10. Supervision and Correction Mechanisms	(Systematic and periodic vs. random)
11. Degree of Staff Overload	(Low vs. High)
12. Interpersonal Conflict Resolution Mechanism	(Have one vs. Don't have one Effective vs. Ineffective)
13. Potential for Trainee-Trainee and Trainee-Staff Interaction	(Low vs. High Planned vs. Happenstance)
14. Project Principal Focus (RDD or E)	
15. Project Sub-foci (Number each of RDD or E)	
16. Length of the Project	
17. Where in the Time-line Trainees Would Enter	
18. Tasks to be Done in the Project	

We have included in this report the questionnaire we used in gathering initial information about prospective training project/sites. Summaries of the information gathered are also provided. This was an initial attempt to make contact with prospective training projects and training sites and to begin our own work in determining which projects and sites we want as part of the training program.

We will proceed during the design phase to develop a detailed questionnaire and site-visitation procedure for assessing all of the above listed categories of information. We will test this procedure in a prototype way. However, it clearly would be unnecessary and terribly expensive to attempt to gather detailed information on all possible sites and projects prior to funding for the operational stage. Consequently, we will develop and test during the design phase a procedure for gathering the field information necessary for the training program, and plan during the tooling-up portion of the operational phase, if funded, to gather all of the necessary information.

The Training Model By Which Directed Apprenticeships Will Operate in Project Contexts

After a thorough discussion with members of the Working Council, the following list represents the design tasks which must be accomplished in the specification of the training model.

3.1.1 Determine the set of Training Programs to be made operational

Competency Specification

3.1.2 For each training program establish as complete a set as possible of classes of Terminal Competency

3.1.3 For each class of terminal competencies, establish levels of competency in generic terms

3.1.4 For each level of each class of terminal competencies, define that level and class with representative examples which are of the form of a product to be produced under a given set of conditions. Level of competence is defined as a combination of the difficulty of the task and the difficulty of the setting under which it is accomplished

3.1.5 Link all tasks which can be assigned to determine if a trainee has a given level of competence to the production of a product or class of products

3.1.6 Determine for each criterion task the evaluation criteria which can be applied to the product a trainee produces to see if it meets the requirements of the level of competency for which he is working

Procedures for Defining a Trainee's Program

3.1.7 Develop a procedure for assessing trainee entering competencies in terms of products he could produce under various degrees of difficulty

3.1.8 Establish the mechanism for negotiating a desired competency profile with each trainee

3.1.9 Establish procedures for handling interpersonal problems which are continually present in project situations

3.1.10 Develop criteria for judging a proposed profile as adequate or inadequate for the training program in which the trainee is enrolled, based on norms generated from an empirical study

3.1.11 Establish arbitration procedures if negotiation between trainee and staff fails to produce a satisfactory profile toward which the trainee will work

Implementing a Trainee's Program

3.1.12 Determine which of the training projects need the products specified in the trainee's negotiated/proposed profile

3.1.13 Establish an order for producing the products, for the trainee to work toward his new profile, which (1) is consistent with project demands and timelines; (2) is hierarchically consistent with the other products and competency levels in his proposed profile; (3) permits completion of the training program in a reasonable amount of time; and (4) is consistent with such demands as geographic proximity, need to become familiar with any new project to which he is assigned, etc.

3.1.14 Develop the entry procedures for integrating a trainee into a project

3.1.15 Provide for the necessary instructional materials and procedures for the trainee to learn to do the tasks assigned him

3.1.16 Establish a mechanism for resolving conflicts between what is good for the project and what is good for the trainee in terms of use of the trainee's time

3.1.17 Insure the establishment of the necessary degree of difficulty for the trainee to demonstrate the level of competence specified in his negotiated profile

Recycling Problems

3.1.18 Determine the procedures to be followed if the available training projects do not have available a product need which is required by a trainee's negotiated profile

3.1.19 Determine the recycle procedures if a trainee's product fails to meet the criteria for the negotiated level of competence

Each of the major groupings of tasks to be accomplished will be discussed below, indicating where we are in their accomplishment.

Competency Specification - Tasks 3.1.2 to 3.1.6

Before the August 24 meeting of the Working Council, a breakout of the areas of activity, classes of operations, and representative operations within the classes was distributed to the members of the Working Council. This is included as Appendix A. This appendix has provided the basis of our work in specifying competencies in a form that they can be used in a field-centered training program.

Each class of operations will essentially become an area within which a trainee might become competent. The representative operations will be expanded and systematized until there is as complete a set as possible. Each of these representative operations will then be converted into a task with an associated product, any one of which might indeed be found in actual projects as something that a project staff member might have to do. A trainee will negotiate to perform a limited number of these representative tasks at a particular level of difficulty, the result of which will be a rating of competence in the general area of competence.

Since we have defined the area of competence in terms of representative tasks which one might perform in the field, the problem of finding such a task for the trainee to do is simplified. We ask the project director to look over the representative tasks which define the area of competence and come up with a specific one in his project which is like the representative ones. The training program staff would then have to approve the specific task.

Levels of competency will be defined for each class, made up of ratings of the levels of difficulty under which each of the tasks was accomplished. A trainee would negotiate to perform a representative set of tasks under various degrees of difficulty. He would then perform these in the field, and receive a competency rating based on how well he did.

We have tentatively specified the following set of levels of difficulty for the performance of a task, based on how difficult the conditions for performance of the task were:

Level 1: Could teach someone to do it (Highest)
Level 2: Could do it without assistance from other people or materials
Level 3: Could do it if permitted the time and freedom to seek the help of resources and people he identified
Level 4: Could do it if advised what materials and resources to consult
Level 5: Could do it only under direct supervision (Lowest)

To take as an example the area of competency and the possible operations given on page four of Appendix A, the form on which the negotiations with the trainee would take place would look as follows:

Competency A.2.2 - Development: Description of Target Population					
	Levels of Difficulty				
Possible Tasks	1	2	3	4	5
1. Identify the population who will employ the product to be developed					
2. Study the characteristics of the target population					
3. Determine the constraints of the context within which the product will be applied					
4. Delimit the context within which the target population will apply the product					

A flexible formula would have to be developed to determine how many products produced at what various levels of difficulty would rate what kind of a competence level in the general area of competence.

It will be difficult, of course, to maintain the levels of difficulty in any field setting. However, the advantages of conceiving of competence in this form seem to us sufficient that for the time being we are proceeding as if we will be able to set up levels of difficulty in performing a task.

Much work needs to be done in translating the lists of representative operations given in Appendix A into specific, product-oriented tasks which project directors can use. We are proceeding to develop such a completely specified set of competency areas and intend to have it ready for the next Working Council meeting at the end of September.

Procedures for Defining a Trainee's Program - Tasks 3.1.7 to 3.1.11

Since for the purposes of the training program a competency is measured in an actual context, the problem of assessing entering competencies is difficult. They need to be assessed in terms of products the trainee could produce under various levels of difficulty.

One approach would be to give the trainee the rating forms and ask him to rate himself. Then a sample of his ratings could be tested by putting him in actual or simulated situations and asking him to produce at the level he indicated he could. The trainee's self-ratings might be supplemented by ratings from some of his previous employers, and if the trainee had examples of products he had produced on previous jobs, these could be rated according to the criteria for such products.

One of the by-products of having trainees use the rating forms themselves is that it would prepare them for the negotiation sessions by familiarizing them with how they would be judged. This is perhaps the most difficult task in designing the negotiation mechanism: how can the trainee be familiarized sufficiently with the nature of what is possible that he can come to the negotiation session with some clear and well-thought-out notions of what he wants. Negotiations are impossible unless the trainee has a position in the negotiations.

We also anticipate experimenting with the use of simulations and cases as a way of assessing entering competence.

It can be anticipated that in some cases the trainee and the staff will be unable to agree on a proposed profile. The attempt will be for the staff to develop a formula for judging a proposed profile so that personality factors will be minimized, but there is always going to be the case where the trainee is not satisfied, where he claims that a particular proposed profile ought to be satisfactory for the program in which he is enrolled. Binding arbitration is perhaps indicated.

Implementing a Trainee's Program - Tasks 3.1.12 to 3.1.17

The problems of implementing a trainee's program and of implementing the program for a whole group of trainees seem complex. The tasks are rather clear. The mechanisms boggle the mind. Surely very complicated data processing techniques will be necessary once the program becomes larger than a very few trainees.

A running record will have to be kept of the products needed by the various projects which are available for training sites. Once a trainee's proposed profile is negotiated and meets the criteria of acceptability, a schedule for his trainee-ship will have to be worked out, indicating which projects he will work on, what tasks he will do on those projects, in what order, and how long he will have to do them. The schedule would need to meet a number of criteria in order to be acceptable, ranging from the amount of time necessary to complete the program to the geographic proximity of the shifts from one project to another.

Once a schedule is determined for each trainee, the problems of preparing them for entry into their projects, providing the instructional resources necessary, and assessing their performance can be provided. Probably each project which is used as a training project will have its own entry procedures, though the parameters of those need to be worked out.

It would be useful to be able to have a set of instructional resources available for each product and each competency. A generic set of such instructional resources might be:

1. Read a book on it
2. Watch someone do it
3. Do it under the eye of someone who knows how, with him correcting mistakes
4. Ask someone how to do it
5. Be able to listen to someone explain how to do it
6. Work a self-instructional package on it

If such a set were available, the trainee might request any or all of them until he felt competent to take the criterion task on.

There is an interaction between the notion of having to perform a given task, (produce a given product), under a given level of difficulty and receiving various degrees of instruction. In some cases the receiving of instruction is permitted under a level of difficulty and merely working on the task until it was accomplished would be adequate. In other cases the receiving of instruction while working on the production of a particular product would not be acceptable for certain levels of competency. This implies that there would have to be two comparable tasks available, one for the trainee to work on until he felt he could do the other. Then he would do the second without any instructional help.

The Working Council members indicated that they were concerned over an implication in the plan for laying out a trainee's program that little would be done in the way of ordering the experiences so that one built on the others. Indeed such an ordering criterion was not part of the plan, in order to preserve maximum flexibility in scheduling. After considerable discussion of the additional scheduling complications that this would introduce, the design staff was left with the suggestion that they do everything they can to develop a way of ordering the tasks a trainee was assigned to so that they did build in a logical way on each other.

Recycling Problems - Tasks 3.1.18 to 3.1.19

Enormous numbers of complications could interrupt the planned schedule of a trainee, and the difficulty is that this would have ramifications for all other trainees.

Suppose no training project has available the necessary task/product that a trainee's profile requires. How many projects would have to be available to make this event unlikely? Should the training program have some money to start projects precisely to provide the experiences that no available project provides? How flexible are projects in the way they are carved up--can projects be reorganized to get the same work done in different ways to meet more trainee needs?

There are mathematical procedures for taking all trainee needs and all project tasks and producing the best possible fit. However, in many cases this would mean that trainees would not get what they negotiated, but their second or their third choice. And if after matching trainee requests with available projects the best possible fit changed the negotiated profiles, there would have to be a judgment again as to whether the new profiles were adequate or not.

More simple kinds of complications could call for a rescheduling of a trainee and all other trainees which the rescheduling of one trainee required. For example, what if the work of a project lagged far behind its timeline? What if a trainee fails in his first effort to produce the required product at the required level of competence? How can second and third chances be provided?

The above implies the need for building in a great many degrees of freedom for handling a training program.

Working Council members suggested a number of ways of increasing the degrees of freedom of the program, ranging from the development of simulation models for short, intensive retraining to short-term projects which would be funded by the Training Program simply to provide the kinds of experiences necessary to clean up the loose ends of the programs of a group of trainees. We are also investigating the possibility of assigning the same task on the same project to several trainees who would, in effect, compete to have their work adopted by the project.

One major suggestion, which has been adopted by the design staff, was that if funded for the operational phase, during the tooling up portion of that phase, a pilot program be run, probably at Teaching Research, using just a few trainees, in order to work out the bugs of the program's operation.

One final problem should be raised. It was clear from the beginning that there was a vast difference in the notions of competency based training and the traditional notions of clinical training and apprenticeships. The one implies the need for carefully specified and sequenced activities, each of which has some criterion measure attached; the other implies that the best kind of training is to allow someone to work in the company of a recognized expert, with very little in the way of systematic and carefully sequenced activities. There was concern expressed by one of the members of the Working Council that perhaps the design so far was betraying a lack of faith in the power of the clinical or apprenticeship model. There was too much effort to specify everything; too little to determining the kinds of conditions in which trainees simply ought to be placed and allowed to grow. Work is continuing in an effort to bring about an acceptable fit between competency specification and apprenticeships.

Thrust IV: Management of the Prototype Training Program

The August 1 Progress Report identified and briefly outlined tentative thinking concerning each of six major steps required in the development of the management portion of the Prototype Training Program.

In summary, these steps consist of the identification and specification of management:

1. Operational loci (program, site, project, task role)
2. Positions at each locus
3. Tasks to be performed
4. Procedures and time sequence required to accomplish each task
5. Positional participation in the decision-making process
6. Positional performance in task execution

The focus in this September 1 Progress Report will be upon the further specification of management tasks to be performed, No. 3, above.

In this identification and specification of management tasks, an attempt will be made to provide a first cut at a total collection of tasks to be performed at various management loci with a discussion of attendant ramifications. The development of decision-making, responsibility, and performance assignment structures will be treated at a later, more appropriate time and will reflect thinking developed and reported in the August 1 Progress Report.

The list below represents the tasks to be performed by the management system. On the following pages our thinking on how each task will be accomplished is explained, together with what the products at the end of the design phase will be.

Identification of Management Tasks

4.1.1 Selection of program training sites/projects/task roles

4.1.2 Tentative selection of program trainees

4.1.3 Assessment of trainees' entering competencies and development of Competency Profile

4.1.4 Orientation and training of site/project personnel to receive the trainees and successfully implement the training program

4.1.5 Negotiation and development of Negotiated Profile for each trainee

4.1.6 Development of Schedule of Traineeship for a set of trainees and the sequence of their assignment to projects/task roles

4.1.7 Development of entry procedures for integrating trainee into program/site/project/task role

4.1.8 Allocation of program resources to site/project/task role

4.1.9 Monitoring of trainee progress in clinical apprenticeship

4.1.10 Goal formulation and evaluation of selection process, negotiation mechanisms and site/project selection

4.1.11 Evaluation of trainees' terminal competence

4.1.12 Movement of trainees to subsequent tasks/field placement

4.1.13 Coordination of information network inter/intra management loci

4.1.14 Implementation of decision-making, responsibility and performance structures

Specification of Management Tasks

4.1.1 Selection of program training sites/projects/task roles

Specification of this selection task depends upon and grows out of work in progress in Thrusts I and III of the design effort.

Thrust III is currently identifying and describing possible sites/projects in terms of their availability, training opportunities, and constraints. Agreements in principle will be established at prospective sites/projects by the end of the design phase. Training program focus and the conversion of the set of directed apprenticeships to task roles will be accomplished.

Thrust I adds further refinement to the description of problem-solving activities which are product oriented (task roles) and grow out of projects. Specification of product origin, purposes, context, resources, operations, production, distribution, and management has been tentatively established.

This type of backup information will provide criteria for the selection process which management will implement.

Of concern in the selection process will be the degree to which tentatively available sites/projects/task roles provide appropriate clinical training opportunities to match the identified needs of prospective trainees. Indeed, it is possible that management may be required to supportively create additional training contexts to achieve this end.

Prototype attempts to apply developed selection criteria to proposed sites/projects/task roles will occur in the final stages of the design effort (prior to December 18, 1970).

4.1.2 Tentative Selection of Program Trainees

Tentative selection of trainees consists of collecting prospective trainees for the purpose of initial screening and subsequent assessment. This is prior to entering competency assessment and resulting "fit" to site/project/task role.

Given the prior identification of prospective sites/projects/task roles, one must announce the availability of training apprenticeships and receive notice of tentative interest from trainees. Considerations in executing this management step include procedures for notification. Probably an "announcement brochure" will be used, which might include such illustrative information as training program goals, prospective sites/projects/task roles, variations in time commitments required in training, level and kinds of program support, anticipated limitations on size of total group of trainees, base prerequisites in experience, training and geographic location which would apply to all trainees regardless of specific assignment, the need for supportive recommendations, and formal application procedures. A prototype announcement brochure will be a product of the design phase.

Following tentative selection of trainees, subsequent notification would be needed to detail requirements for launching the procedures leading to the development of the competency profile, the negotiated profile, the schedule of the traineeship, and final selection and assignment.

It should be emphasized that the final selection of trainees occurs only after acceptable negotiation has been accomplished.

4.1.3 Assessment of trainees' entering competencies and development of competency profile

Portions of the work contained in Thrusts I and III offer identification, specification, and classification of competencies related to identified task roles within projects. One item speaks specifically to the specification of assessment procedures for determining entering competencies of prospective trainees.

Building upon this data, management procedures will be developed to implement the mechanism for negotiating a desired competency profile, to implement the criteria for judging the adequacy of the proposed profile in terms of the training program in which the trainee is enrolled, and to care for arbitration if required to achieve a mutually acceptable profile.

Mechanisms for negotiating a competency profile will be tested on a pilot basis during the design phase as a way of finalizing the management procedures.

4.1.4 Orientation and training of site/project personnel to receive the trainees and successfully implement the training program

Although the final negotiated contract between cooperating parties will contain information specifying many operational functions (including assignment, profiles of trainees, time lines, specification of target training products, program support, and financial and other resource allocation), it is also true that many additional operational functions and relationships need attention in an orientation/training context.

By the conclusion of the design phase, procedures for clarifying the nature and goals of the training program will be developed for presentation to site/project managers. This presentation will utilize descriptive materials and informational meetings.

During the tooling-up period of the operational phase of the program, if this design is funded, all personnel (including non-training staff within projects) will be exposed to orientation/training experiences which will include such items as an overview of program goals, a review of the collection of management tasks outlined earlier in this section, attention to the questions of institutional loyalty, communication linkages, cost/benefit review, and the more global cooperative consideration of what is being attempted, how it will operate, and the potential value to the host site/project, the trainee, and to the educational community in general.

Procedures for the workable machinery to implement decision-making, responsibility, and task performance structures will require training in the Wallen Model referred to in the August 1 Progress Report. Indeed, a requirement to implement the model is the active participation of all involved personnel. Thus the operational phase of the program is the appropriate time to attack this management task even though a description of the model and how it might function can and will be included in the final report of the design phase.

The purpose of the orientation/training effort is to establish a climate of mutual understanding and trust where the exercise of appropriate autonomy is guaranteed and the necessity for mutual cooperation accepted. The specific anticipated program supports available and the mechanisms to activate them must be enumerated and understood. In short, operational consequences must be mutually explored and as many "unanticipated consequences" as possible identified and avoided.

4.1.5 Negotiation and development of Negotiated Profile for each trainee

This task is addressed in Thrust III concerning the development of negotiation procedures for developing the matching"fit" between trainee entering competencies, trainee goals (tasks/products) and the available tasks/products present in projects.

It is anticipated that the attainment of a suitable "fit" and mutually satisfactory profile will present serious management problems.

The identification and specification of roles containing competencies consisting of a collection of ordered tasks, all available for trainee selection, will be the information provided, although the magnitude of the effort can be appreciated.

Management assistance will necessitate the development of a model to provide mechanisms for estimating requirements of quantity/specificity of available project task clusters, and to provide mechanisms for achieving a satisfactory degree of "fit." This may well involve the development of data processing procedures.

4.1.6 Development of Schedule of Traineeship for a set of trainees and the sequence of their assignment to projects/task roles

The Schedule of Traineeship results from the negotiated proposed profile and provides such information as project assignment, task(s) assigned, order of task performance, and time allocations for the traineeship. In effect, the Schedule becomes the trainee's individual work plan.

The Schedule of Traineeship will be mutually developed by, and acceptable to, the trainee, his project directors, and the training program representatives.

Management activity includes development of acceptable criteria for the Schedule, execution of the document, and the development of phased time entry of trainees to assignments.

4.1.7 Development of entry procedures for integrating trainee into program site/project/task role

Thrust III will design the orientation program for trainees prior to their clinical assignment.

It is anticipated that each training project will require distinct orientation content appropriate to the setting although some content common to all will exist.

In addition to the same kinds of items suggested for site/project manager orientation (see 4.1.4), certainly trainees will require the added benefit of instruction in how to learn from a clinical experience.

The orientation program will be broadly specified in the design phase final report, with implementation occuring in the operational phase of the program.

4.1.8 Allocation of program resources to site/project/task role

Management tasks focus primarily on the distribution schedule of allocation of available resources including, primarily, training resources, financial resources, and personnel resources.

Training resources refer to instructional materials and procedures needed by a trainee in order to learn to do the task(s) assigned him. Such instructional resources tied to learning a task might include reading a book on it, watching someone do it, doing it under the correcting supervision of someone who knows how, asking someone how to do it, being able to listen to someone explain how to do it, or working a self-instructional package on it. Management must develop procedures to respond to an indicated need for instructional resources, locate or create appropriate resources, determine the most appropriate resource(s) for a given need, provide resources in sufficient quantity available for all program needs, and facilitate resource flow.

Financial resources coming from operational grant funds must be allocated. Tentative thinking indicates the likelihood of a major allocation as "incentive grants" to training projects for use in salary payment to trainees, an additional major allocation to the program locus to support trainers operating in the field, and the acquisition of training materials or experiences. Management must supervise and provide accounting procedures for financial resource allocation.

4.1.9 Monitoring of trainee progress in clinical apprenticeships

With the finalization of individual Schedules of Traineeship and subsequent assignment of trainees to site/project/task roles, the trainee begins his clinical apprenticeship.

Along the continuum from assignment to termination it is anticipated that certain critical monitoring transactions will occur. A product of the design phase will be the specification of monitoring transactions which detail the information needed/given, how the transactions will be performed, by whom, and the proposed utilization of monitoring information so that the information gained may be utilized in the ongoing program, facilitating corrected operational quality and efficiency.

The monitoring function, operating at the Program locus and encompassing each program site/project/task role will periodically solicit responses to the following illustrative list of concerns and subsequently supply correcting inputs as indicated.

1. The need for training resources - which, for whom, where, when, in what quantity, in what presentation mode(s)

2. The adequacy of initial resource allocations, including financial and personnel

3. The degree of "fit" between the training components of the program and the task goals of the projects

4. For all participants in the program, the degree of personal satisfaction with program experiences

5. The degree to which the trainee's individual Schedule of Traineeship appears appropriate given his site experiences

6. The degree to which proposed target dates for the progress of training are being realized as scheduled

The omission of monitoring concerns relating to trainee movement from task to task within a project or role is deliberate as these decisions fall to the project director in consultation with the trainee rather than to program locus monitoring.

The implementation of monitoring transactions will utilize such techniques as the maintenance of resource allocation schedules, questionnaires, on-site interviews, and less formal procedures including telephone contacts.

4.1.10 Goal formulation and evaluation of selection process, negotiation mechanisms and site/project selection

Procedures for the establishment of goals (objectives) at each operational locus will be developed during the design phase.

Goals at the program locus may be inferred from the objectives stated in the original proposal and the subsequent refinements reported in Progress Reports.

Goals at the site/project loci will undoubtedly be primarily task oriented and secondarily training oriented. Obviously, goal "sets" will vary among sites/projects.

Goals at the task role locus must be soliciated from individual trainees.

A management task is to assure that these goals at all loci are identified and communicated and that as great a degree of compatability as is possible is achieved.

The resulting goal cluster forms the foundation for evaluation tied to stated objectives.

Evaluation will be concerned with the measurement and reporting of the degree to which objectives have been achieved together with the resulting consequences or cost/benefit.

Key factors of concern to program management are the effectiveness of the selection process for trainees/sites/projects/task roles and the negotiation mechanisms employed.

Evaluation procedures may call upon a variety of techniques including the development of instrumentation and the utilization of advisory board reviews and reports.

Evaluation results may require action of various types including:

1. Continuation of existing procedures, mechanisms, and processes
2. Problem-solving conferences leading to negotiated modifications
3. Expert review panel critiques
4. Redesign and implementation of revised orientation and/or training experiences
5. Reassignment of personnel
6. Termination of involvement with a project and withdrawal of resource support
7. Termination of involvement with a site and withdrawal of resource support
8. Revisions of time, decision, responsibility and implementation structures
9. Termination of involvement with a trainee and withdrawal of resource support

4.1.11 Evaluation of Trainee's terminal competence

Thrust I will supply the collection of tasks and the appropriate terminal competency achievement indicators.

Implementation procedures to evaluate a trainee's terminal competence would not appear difficult to design or particularly in need of management attention except in the event of trainee failure to meet the criteria for the negotiated level of competence.

This possibility poses for management the task of facilitating recycling procedures containing possible parallel but alternative tasks leading to competency.

This is but one illustrative example of possible accommodation to a failure event. The point to emphasize is that the design phase must produce suggested alternative remediation procedures available to care for failure to achieve terminal competence in the initial attempt.

4.1.12 Movement of trainees to subsequent tasks/field placement

This management task includes caring for the logistical problems resulting from the trainee's successful demonstration of competency as per his negotiated profile/schedule. Several possibilities for any given trainee are suggested:

1. Termination of his training

   A. with the issuing of an appropriate certificate of completion or similar accreditation by the program and/or cooperating university

   B. with program management assistance in obtaining occupational placement

2. Continuation of his training

A. with assignment to a

(1) new negotiated role cluster of tasks within the same project at the same site

(2) new negotiated role cluster of tasks within a different project at the same site

(3) new negotiated role cluster of tasks within a different project at a different site

"Termination" requires management procedures for recognition and placement assistance. "Continuation" requires management procedures for a variety of re-entry possibilities. All procedures will be developed in the design phase.

As an aside related to the possibility of continuation of training, current thinking would see the desirability of encouraging a trainee to re-enter at a new site/project in order to benefit from a variety of settings and experience a new and more sophisticated apprenticeship which may have implications for "career ladder" goals.

The consequences to projects of personnel dislocation may be severe, given the constraints of project task requirements and target completion dates. These project considerations must be taken into account in decisions to shift and reassign trainees.

4.1.13 Coordination of information network inter/intra management loci

Procedures assuring multi-flow communication channels operating within and between the management loci of program/site/project/task roles are essential to optimum program operation.

The desirability of shared information of a critical nature becomes apparent when considering such items as the final selection of trainees/sites/projects (including descriptive profiles); training opportunities available; resource availability, allocation and re-allocation.

A more discreet listing of informational topics and the mechanisms for informational flow will be developed by the end of the design phase.

4.1.14 Implementation of decision-making, responsibility and performance structures

This management task actually contains two major tasks which received separate descriptive treatment in the August 1 Progress Report as tasks 4.5 and 4.6.

While avoiding a repetition of the content of that report, it should be noted that the operationalizing of management tasks requires a model which will be developed as a product of the design phase.

With management operational loci identified (program/site/project/task roles) and tasks initially identified and specified (as in this report), there remains the need to provide machinery to care for such implementation questions as --

1. What are the decision-making points contained in management tasks?
2. Which (or what combination of) management loci participates in which decision-making acts and in what degree of influence?
3. What are the specifics of the responsibility structure?
4. Who actually performs management tasks and sub tasks, when and under what constraints?

These and related considerations (the mutual understanding of which can make the difference between effective and dismal operational performance) shall be attacked by the application and slight modification of the Wallen charting technique briefly discussed in the August 1 Progress Report.

The completed matrix for each implementation category at both the broad management loci and the discreet level within a given management locus must necessarily be completed during the initial stages of the operational phase of the program because the actual participants must interact in the formulation of this management implementation tool.

However, it is possible to prepare a presentation of simulated experiences designed to orient program staff and other prospective participating parties to the prcedures involved in implementing the Wallen System. Such a simulation package will be a product of the design phase.

APPENDIX D

PRELIMINARY FINAL REPORT
Project No. 0-9037
Grant No. OEG-0-70-4977

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

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November 15, 1970

U. S. Department of
Health, Education, and Welfare
Office of Education
Research Training Branch
National Center for Educational Research and Development

PREFACE

The training program design described in this report has been developed in fulfillment of a request by the Division of Higher Education Research of the National Center for Educational Research and Development to develop an operational model specifying new training patterns for preparing research, development, demonstration/dissemination and evaluation personnel in education.

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RATIONALE

The staff of this project has taken the position that a relevant, innovative program for training the educational problem-solving professionals of the future must be directed not only to meeting the increasing supply needs for technically trained research, development, demonstration/dissemination, and evaluation personnel (see Buswell, et al, 1966; Clark E. Hopkins, 1969) but also must anticipate and be appropriate for the radically changing institutional, intellectual and educational problem-solving needs of'the future. Three aspects of change have particularly influenced the design of the proposed training model; the shifting nature of the educational problem-solving process; the new character of the institutional roles which educational research, development, demonstration/dissemination, and evaluation (RDD&E) personnel will be assuming; and the changing role of the universities in professional training.

Any serious program for training educational RDD&E personnel must take cognizance of the fact the entire process of educational problem solving has fundamentally changed over the last twenty years. Significant educational problem solving is being accomplished increasingly through "Temporary Systems"* established and organized to draw together and coordinate the optimal resources required to solve a particular problem in a specific period of time. Major task forces such as the School Mathematics Study Group and Physical Science Study Committee curriculum development programs are exemplary early cases of this trend. Indeed, the working group of this project represented four different institutions and a six-month commitment; this is itself representative of this trend. The project, a temporary collaboration of personnel and institutional resources to solve a problem, has definitely become the principal problem-solving mechanism for changing educational practice in our society. Furthermore, significant projects are becoming increasingly complex and interdisciplinary, involving the collaboration of multiple personnel with a variety of competencies, and the coordination of multiple institutional resources. Such a development has already begun to have a massive impact upon educational problem-solving institutions, the professional roles of educational RDD&E personnel, and the nature of the knowledge, skills and attitudes required to function successfully in those roles.

The project structure is playing a major role in making obsolete the traditional bureaucratic organizational forms that have heretofore dominated educational problem-solving institutions. Rather than preparing people to assume particular roles within a relatively stable institutional environment, preparation for the educational problem-solving professions today must be geared toward role flexibility. Emphasis must not be placed solely upon a given institutional position but rather upon one's individual skills with respect to the problem at hand. The reality of the situation today is that on one project a given individual might be a staff specialist working in a consulting position with respect to the main thrust of the project. On the next project he might have responsibility for a particular phase of the development and on a third project he might be the project director, responsible for coordinating and supervising all aspects of the project. Such required role flexibility has begun to extend not only among roles within a particular institutional setting but also across institutions as the establishment of working consortia and the outside contracting of problem-solving tasks becomes increasingly common practice in education. Clearly, the traditional technical and classroom dominated education that has characterized the preparation of educational problem-solving personnel in the past is not sufficient as preparation for individuals who must cope with a professional life of change. In addition to the knowledge and technical skills of their profession, prospective educational RDD&E personnel must be trained to assume a variety of professional roles, to function effectively in short-term, intense interpersonal and group situations, and to coordinate their skills with the needs and abilities of others.

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*Bennis, W.G. and Philip E. Slater. The Temporary Society. New York: Harper and Row, 1968. In this book, Bennis and Slater argue that the trend toward the establishment of temporary systems is a general one in our society and will replace the rigid, bureaucratic structure as the dominant organizational form of social institutions.

Another critical implication of this analysis is the short-term obsolescence of formal, technical training. It is not unusual today to find much of a person's professional RDD&E training virtually obsolete before he even begins to make a significant contribution professionally. The timeless clich of a "life of learning" is today a functional necessity. But a life of learning cannot be an individual responsibility alone nor one that can be remedied by the expensive strategies of periodically returning to the classroom, as important as these efforts may be in particular cases. Rather, we must find methods to institutionally operationalize continual learning. Work itself must become educative in a formal sense, and become the focus for systematic and continual self-renewal and professional growth.

Related to the observations above is the fact that it is no longer approriate to recognize the universities as the only viable centers of advanced professional training. There are numerous university programs, for example, that already recognize the validity of formal internships with government and private or public research centers. As formal education becomes increasingly costly, training programs will have to rethink the notion that advanced professional training must necessarily take the trainee out of productive work and into a classroom setting where the burden of training is being borne by society. Education must seriously develop modes of advanced training that are at the same time socially productive.

Furthermore, as universities become increasingly oriented toward mass education, there are serious signs that they are becoming unmanageable as far as the demands of advanced specialized training are concerned. We are already seeing the breakup, at the professional level, of many of the great European universities with advanced training being taken over by smaller specialized institutes. There are initial signs of a similar breakup in this country. Several universities, for example, have already begun not to demand a residency requirement. New patterns in training must be developed involving systematic consortia arrangements that can begin to deal effectively with this eventuality.

The design of the particular training model proposed here is derived directly from the implications of the discussion above. The model represents a first attempt to operationalize the concept of a self-learning project. In this sense it is independent of any particular institution and a general model of education. The model prescribes the processes through which training and work are interwoven intimately into the fabric of the project itself with the cooperating universities functioning primarily as sponsors, providers of necessary scholarly support and monitors of the quality of training. In other words, the model proposed here is an attempt to establish the concept of career development training within the formal context of work. The general educational implications of such a model, if successful, are clear and fundamental. In an age where retraining, professional development and institutional self-renewal must be a continuing affair, such a model offers an initial attempt to define systematically the concept of the job as the central site for professional preparation for the next job. The general concept applies equally as well to industry, and to all levels of education, as it does to the specific focus of the current project...the preparation of educational RDD&E personnel.

THE THEORETICAL FRAMEWORK

This section of the report will describe the general theoretical model upon which the proposed training programs are based. As was implied by the discussion in the previous section, the proposed training model is based upon the notion that training of educational RDD&E personnel can and, indeed, should be accomplished primarily in project or work settings. The principal problem of such a model of training is to specify how the diverse knowledge, skills and resources of recognized centers of professional training can be assembled systematically and coordinated with the centers of educational problem solving and practice to insure quality and efficiency in a marriage of purposes. Subsequent sections of this report will deal with the details of how this model will be operated through the Pacific Northwest Training Center (PNTC).

In many respects, support for the model of training proposed here can be found in growing numbers of field experiences that are currently being integrated into a wide variety of professional training programs throughout the country. Virtually every professional training program now includes some experience in the actual work setting. Despite the increase in field training, little is known of its empirical effectiveness. It is almost as if the concept of field training has so much face validity that few people seriously question its correctness.*

Much of the assumed validity of field training is consistent with the accumulating evidence that the nature of the environment in which learning takes place is at least as important as the content and procedures of the actual instructional program. This training model proposes to move much of the usual kinds of formal curriculum and instruction into actual operating settings with all their complexity, and to liken as carefully as possible the instructional program to the kinds of experiences which the trainees have and the kinds of jobs they are asked to perform. There is clear recognition in the model of the need for instruction. Mere experience is not enough. Any quality educational experience must forge an intimate interaction between experience and reflection. The ability to learn from an operational setting, to develop generalizations and insights is not something which usually happens naturally. Such reflection must be encouraged systematically through the coordination of formal instruction with the field experience. The proposed training model is based on the assumption that the best way to do this is by assembling the expertise for formal instruction at the project setting.

The Focus on a Project

One of the major problems with field-centered programs has been the individual nature of each field placement. If every field site has its own individual characteristics, training individuals to do the work of a site could be construed as very limiting. What is needed for any field training program is some evidence that the training context has some generalizability across institutions and settings.

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*The principal educational arguments for field-centered training have been summarized in "Systematic Learning in Natural Settings" by Norman D. Sundberg, unpublished address to the conference "Instructional Innovations in Undergraduate Instruction," Eugene, Oregon, July 24, 1969.

It is an underlying assumption of the training model proposed here that the project, as a sociological entity, not only represents the principal problem-solving mechanism for changing educational practice today, but also is a natural, generalized training context; that the experience of being trained within a particular project or projects provides the basis for competent performance across a wide variety of educational projects. In other words, that project-based training is not limited specifically to a situation or site. While this claim must remain an assumption initially in the program, a major effort will be made to generate valid and reliable data on this question.

The point of view that the project is the logical context within which to train RDD&E personnel has provided a significant amount of analytical power in our thinking about new directions for educational training. Some obvious problems the use of the concept "project" helps educators to deal with follow.

1. The project provides an alternative and potentially more powerful unit of analysis for identifying needed competencies and relating them to training programs than typical approaches, such as job descriptions or bodies of knowledge. Two studies are currently underway which will provide the data base for explicating these relationships. (Gagne, 1970; and Schalock, 1970)

2. A project focus emphasizes the differentiated roles involved in problem solving and requires training programs which provide preparation for these roles, rather than satisfying particular academic requirements.

3. A project focus requires the training program deal with the continual interactions and interdependencies that exist among the functions of educational RDD&E in any operating setting.

4. Projects, with their emphasis on the generation of usable products, provide a natural and relevant framework within which to analyze the critical, though elusive, function of product diffusion and to train educators in the competencies required to perform this function.

5. The emphasis on product generation within time constraints heightens the importance of regularly evaluating the performance of members of the project, and thus makes a project a natural training context.

6. The concept "project" emphasizes collaboration among multiple and diverse resources. Consequently, the training model must reflect the need to prepare educational RDD&E personnel with the competencies to function in interdisciplinary problem-solving groups across a variety of settings.

7. The concept of "project" emphasizes reality both with respect to solving real problems and with respect to the constraints posed by institutional settings.

The training model has been developed explicitly to make constructive use of the training potential of the project context.

Clinical Training

A project focus not only implies the necessity of a strong field-centered orientation to training, but also provides the natural context within which field-centered training can function. THE MODEL OF TRAINING PROPOSED HERE VIEWS THE PROJECT NOT ONLY AS THE CONTEXT FOR WHICH INDIVIDUALS WILL BE TRAINED, BUT ALSO THE PRINCIPAL CONTEXT IN WHICH THE TRAINING WILL TAKE PLACE. The conceptual groundwork for such a model of training is derived largely from the model of medical training in the teaching hospital (Knowles, 1966) and some related preliminary thinking with respect to teacher training in education. (Bolster, 1967; MacIntosh, 1969; Fletcher and Williamson, 1969; Parker, 1969; Schalock, 1969)

The "clinical" model of training proposed has the following general characteristics:

1. It is relevant to the changing needs of education in that it is future oriented and self-adaptive. Since training is tied directly to the work of projects, changes in educational needs as reflected in funded projects are transferred to the content and procedures of the training program.

2. It is field-centered. The clinical model assumes the core of the trainee's experience and his most significant learning take place as a functioning member of a project team performing relevant work for the project.

3. It is personalized. The trainee negotiates the development of a personal profile of competencies toward which he works by being assigned appropriate tasks in projects. The trainee's work is closely and individually supervised, as certain project members are at the same time colleagues and supervisors. The critical learning incidents are those related to problems that the individual has relative to completing his project tasks.

4. It is competency based and data dependent. Since trainees are functioning members of project teams, the focus of training is upon the competencies required to function in relevant problem-solving roles within projects. The model provides that trainees will be provided the opportunity to increase the scope of their competencies, through being given increased responsibilities as competency increases, and through being given opportunities to develop new competencies. In addition, the projects themselves serve as natural, operational contexts within which to evaluate the achievement of those competencies. Competence is the ability to perform a given task in an actual project, and the gaining of each new competence is carefully assessed and monitored.

5. It is related to career advancement. The differentiated role structure of project teams from paraprofessionals to principal investigators and project directors provides a context within which "supervision" occurs naturally at all levels of competence. Consequently, the clinical model of training proposed here serves not only as a model of preservice training for entry into the fields of educational RDD&E, but also as a model of inservice and advanced training for career advancement. Under such a model the "project" teams become units for self-assessment and growth as well as working contexts for solving educational problems. The training model makes operational these characteristics.

The Basic Structure of the Training Model

The clinical model of RDD&E training involves the systematic embedding of a training component into project contexts. Consequently, projects selected during the preparatory phase as "training projects" will be reorganized to embody two principal components--a task component and a training component. The task component is primarily concerned with directing efficiently the available resources towards the solution of the project's identified problem. The training component attempts to guarantee that the project context provides the individual trainee with the optimum opportunities for learning. The simultaneous functioning of these two components provides the model of clinical training with much of its power. Yet it is recognized that the goals of the two components are not entirely compatible. The operational model must be able to deal effectively with the tensions that are implicit between these two components. Procedures for resolving these tensions have been delineated and will be explained later.

The Need for Special Sites

Clearly, a model of training which attempts to integrate completely the notion of a project as a problem-solving, product-producing enterprise with that of a project as a training context must, initially at least, identify and support special sites for implementing the program. The typical relationship between a training program and a field setting is just not appropriate to the model.

The training program which has been designed must, of necessity, exert sufficient influence over the training projects to insure the adequacy of the training experiences. It is proposed to create special training projects out of actual ongoing projects in the training sites, and to staff and operate them in a special manner so they are simultaneously projects requiring professional quality work, as well as being contexts for teaching and learning.

The Generalizability of the Training Model

In spite of the need for special training sites for the initial operation of the proposed training model, the model is theoretically highly generalizable. It is anticipated that the concept of the training project will become after a few years of trial and refinement in this training program, potentially generalizable to any project setting. Indeed, it is expected that, under the conditions of the continual change noted in the Rationale, to run a project as a learning and training experience for all staff members will come to be the most effective and efficient way to organize a project. In addition, the training program itself is highly robust because sites can be added any time a field setting has a sufficient number of projects to involve between ten and fifteen trainees and the training program has a sufficient funding base to expand to more sites. It is hoped that over time the increase in the production of work due to the presence of trainees and the increase in the quality of work due to the inclusion of training procedures as part of the project will lead to the possibility of projects becoming training projects, with an almost infinite expansion of the training model.

Initial Choices

The training programs using this model will all be "long-term" training programs. Because of the project and field-centered focus of the training model, this training design is not appropriate for "short-term" training such as institutes, workshops or other kinds of high intensity, quick payoff, limited instruction. Trainees must be immersed in a project context long enough for that context to have meaning, and it is anticipated this would be a minimum of six months. Under normal circumstances no trainee will be admitted to the training program for less than this amount of time.

After careful consideration of the available sites in the Pacific Northwest and of the needs of the nation and the region, it was determined the initial training programs should be in the areas of development and evaluation. There will be two levels of training--one for "generalists" and one for "specialists" associated with both the evaluation and development programs. The specifics of these various programs are described later in this report.

OBJECTIVES OF THE TRAINING PROGRAM

Analysis indicates that there are six clusters of objectives of this training program:

1. Impact Objectives, or long-range intents of the Consortium
2. Training Objectives, including numbers of trainees in RDD&E, the sets of tasks in RDD&E, and the utilization of the sets of tasks
3. Design Objectives, referring to the properties of the model and their anticipated benefits
4. Program Objectives, the objectives of the major events of the training program
5. Subprogram Objectives, the objectives of the tasks or activities which contribute to the achievement of the objectives of the major events of the training program (the Program Objectives)
6. Management Objectives, referring to the timeliness and effectiveness of the utilization of manpower and resources to achieve the other objectives

The remainder of this section of the report will be devoted to a presentation of the objectives in each of the six categories which have been identified.

Impact Objectives

These objectives are derived from the statement of the long-range intents of the Consortium.

1.1 To increase the quality of work in educational RDD&E

1.2 To increase the appropriateness, as to local and national priorities, of work in educational RDD&E

1.3 To increase the quantity of work in educational RDD&E

1.4 To increase the number of RDD&E personnel in education

1.5 To provide better trained RDD&E personnel, active in educational RDD&E

1.6 To provide personnel trained with wider ranges and various levels of RDD&E competencies

1.7 To achieve these ends by designing and establishing new patterns for training such personnel

1.8 To establish and achieve university commitment to permanent training programs of this nature, independent of full programmatic federal support

1.9 To achieve continued involvement of the nonuniversity members of the Consortium, including their provision of:

  - 1.9.1 Training sites and training projects
  - 1.9.2 Training staff
  - 1.9.3 Materials development
  - 1.9.4 Continued field-referenced influence on the training program to insure its continued relevance
  - 1.9.5 Instructional and program evaluation

Training Objectives

2.1 To train personnel for educational RDD&E, in appropriate proportions with reference to local and national needs

2.2 To train personnel as generalists and as specialists, in appropriate proportions with reference to local and national needs

2.3 To develop continually improved estimates as bases for 2.1 and 2.2

2.4 To develop continually an improved classification of specific competencies in RDD&E, which will be:

  - 2.4.1 Tightly coupled to observable products
  - 2.4.2 Exhaustive
  - 2.4.3 Illustrate parallel competencies among RDD&E
  - 2.4.4 Identify competencies which are specific to RDD or E

2.5 To maintain and improve a conceptual approach to the content of the training programs so that any particular trainee's profile, group of trainees' profiles, job description or cluster of job descriptions will be describable in terms of tasks. Observation of task similarities and differences may be analyzed as the rationale for determining:

  - 2.5.1 Entry assessment of trainees
  - 2.5.2 Ongoing assessment of trainees
  - 2.5.3 Exit assessment of trainees
  - 2.5.4 Planning for training of individuals
  - 2.5.5 Monitoring for training of individuals
  - 2.5.6 Evaluation for training of individuals
  - 2.5.7 Comparing exit competencies of individuals
  - 2.5.8 Describing instructional specialties of staff
  - 2.5.9 Designing and describing instructional materials and procedures
  - 2.5.10 Designing staffing and project selection in field institutions to maximize training of students without stopping crucial functions of the field setting

        - 2.5.11 Resolving issues and conflicts surrounding and within training programs
        - 2.5.12 Facilitating career mobility and personal development

- 2.6 To develop, maintain and improve lists of tasks in educational RDD&E consistent with 2.1, 2.2, 2.3, 2.4 and 2.5, which will be:

    - 2.6.1 Exhaustive
    - 2.6.2 Made up of tasks small enough to be substantially independent of each other, and produce separable, visible and identifiable products
    - 2.6.3 Made up of tasks large enough so as to avoid the separate listing of highly correlated subtasks
    - 2.6.4 Cover a range sufficiently robust to accommodate, as subsets, the particular sets of tasks emphasized by various authors in reference to diverse problems, products and contexts
    - 2.6.5 Responsive to diverse inputs:

        - 2.6.5.1 Descriptions of current jobs
        - 2.6.5.2 Forecasts of projected jobs
        - 2.6.5.3 Predictions of technical trends
        - 2.6.5.4 Considerations of social and educational needs, values and priorities

Design Objectives

3.1 To maintain an orientation to demonstrable competencies in actual work settings as the highest instructional priority

3.2 To focus on the project as a training setting

3.3 To emphasize learning and instruction at project sites, from the very start of training

3.4 To develop a commitment to negotiation, individualization and feedback with respect to procedures, materials and selections of subsets of tasks and sequences of tasks

3.5 To establish validity between what is provided in training and what is required on the job

3.6 To depend consistently upon performance data

3.7 To define performances in observable terms for assessment

3.8 To integrate the technical competencies to be learned

3.9 To integrate the competencies to be learned into interpersonal performances

3.10 To provide evidence to the trainee, the training program and potential employers as to what the trainee can do

3.11 To provide assistance to the field sites and employers in making effective use of what the trainee can do

3.12 To develop in the trainees commitments to the impact objectives and the training objectives

Program Objectives

The objectives of the major events of the training program during Year One of operation:

4.1 To achieve recruitment of trainees (by developing a brochure, a preliminary interview form and a slide-tape; by distributing the brochure; by contacting key agency staff, initial screening, initial trainee conferences and planning; by completion of a followup dossier on each trainee and by interim selection of trainees and alternates)

4.2 To implement an induction process (by developing a competency profile instrument and situational assessment instruments; by executing a field survey to derive model competency profiles; by conducting a profile validation; by refining the slide-tape; by preparing instructional materials for training staff; by developing instructional materials for trainees; by selection and training of training staff; by conducting induction interviews; and by completing final selection)

4.3 To carry out the trial project experiences (by developing the field problems seminar and the conference and supervision training materials; by selecting or creating, staffing and planning the trial projects; by making site arrangements; by establishing scheduled seminars, conferences and staff meetings; by planning and operating the content seminars; by planning and operating the field problems seminars; by training staff in conference and supervision techniques; by engaging in assessment of competence in context; and by trial project operation)

4.4 To carry out the actual project assignments (by developing a procedure for describing projects in detail; by developing a computer program to match trainees and projects; by developing an orientation program for each site; by developing project site arrangements for each site; by assembling detailed information on each training site; by matching trainees to available experiences; and by executing continuing project site operations)

4.5 To complete the termination process (by developing program certification standards and academic certification standards; and by performing job market surveys and placement of certified trainees)

Subprogram Objectives

The Subprogram Objectives are the specific tasks to be performed in order to achieve the Program Objectives

- 5.1 Trainee Recruitment
  - 5.1.1 Development Tasks
    - 5.1.1.1 Brochure
    - 5.1.1.2 Preliminary interview form
    - 5.1.1.3 Slide-tape presentation
  - 5.1.2 Continuing Tasks
    - 5.1.2.1 Distribution of Brochure (and Personnel Contacts)
    - 5.1.2.2 Initial Screening
    - 5.1.2.3 Initial conference (with planning time)
    - 5.1.2.4 Followup dossier competence on trainee
    - 5.1.2.5 Interim selection of trainees and alternates
- 5.2 Induction; screening of 25 applicants to 15 initial trainees
  - 5.2.1 Development Tasks
    - 5.2.1.1 Competency profile instrument
    - 5.2.1.2 Field survey to derive model competency profile
    - 5.2.1.3 Profile validation
    - 5.2.1.4 Slide-tape refinement
    - 5.2.1.5 Instructional materials for training staff
    - 5.2.1.6 Instructional materials for trainees and situational assessment instruments
  - 5.2.2 Continuing Tasks
    - 5.2.2.1 Selection and training of training staff
    - 5.2.2.2 Induction interview
    - 5.2.2.3 Final selection
- 5.3 Trial Projects
  - 5.3.1 Development Tasks
    - 5.3.1.1 Field problems seminar development
    - 5.3.1.2 Conference and supervision of training material
  - 5.3.2 Continuing Tasks
    - 5.3.2.1 Selection or creation, staffing and planning of the trial project
    - 5.3.2.2 Site arrangements
    - 5.3.2.3 Scheduling seminars, conferences, staff meetings

        - 5.3.2.4 Seminar planning
        - 5.3.2.5 Operation of content seminar
        - 5.3.2.6 Operation of field problems seminar
        - 5.3.2.7 Operation of conference and supervision training
        - 5.3.2.8 Assessing of competence in context
        - 5.3.2.9 Operation of trial project

- 5.4 Actual Project Assignments

    - 5.4.1 Development Tasks

        - 5.4.1.1 Procedure for describing project in detail
        - 5.4.1.2 Maximum fit computer matching program
        - 5.4.1.3 Orientation program for each site
        - 5.4.1.4 Project site arrangements (per site)

    - 5.4.2 Continuing Tasks

        - 5.4.2.1 Assembly of detailed information on each trial project
        - 5.4.2.2 Matching of trainees to available experience
        - 5.4.2.3 Project site operation

- 5.5 Termination Process

    - 5.5.1 Development Tasks

        - 5.5.1.1 Certification standards (program)
        - 5.5.1.2 Certification standards (academic)

    - 5.5.2 Continuing Tasks

        - 5.5.2.1 Job market survey
        - 5.5.2.2 Placement of certified trainees

Management Objectives

These objectives include 6.1, Training Coordination Center functions, and 6.2, Training Site functions.

The management objectives for these functions with reference to the management plan (the operation of the training program) will have to do with the following considerations:

a. Are the designated people doing their parts of the functions?
Are they doing these effectively?
If not, why not?
What changes should be made?

b. Are the functions being done on time?
If not, why not?
What changes should be made?

c. Were the functions and schedules reasonable?

6.1 Training Coordinating Center Functions

These functions, with various responsibilities apportioned in the management plan for development of procedures, evaluation of those procedures and operation of the procedures, involve the following roles:

Program Director
Assistant Director for Monitoring and Fiscal Affairs
Data Processing Specialist
Assistant Director for External Field Relationships
Field Assistant
Clerical/Technical
Governing Council
USOE Consultant Panel
Internal Review and Advisory Committee (IRAC)
Training Specialists
Training Consultants
Training Site Coordinators only (not as part of IRAC)

The functions to be performed include:

6.1.1 Consortium procedures
6.1.2 Site selection and termination procedures
6.1.3 Training, project selection and termination procedures
6.1.4 Training materials for staff and trainees
6.1.5 Program procedures
6.1.6 Staff selection and termination procedures
6.1.7 Staff training procedures
6.1.8 Trainee monitoring and termination procedures
6.1.9 Traineeships scheduling
6.1.10 Matching trainees to known job openings
6.1.11 Fiscal control
6.1.12 Clerical and technical services
6.1.13 Trainee selection procedures
6.1.14 Trainee induction procedures
6.1.15 Job development procedures
6.1.16 Credential procedures
6.1.17 Public relations and dissemination procedures

6.2 Training Site Functions

These functions, with various responsibilities apportioned in the management plan for development, evaluation, and operations, involve the following roles:

Training Site Coordinator
Training Site Instructional Support Personnel
Training Site Clerical/Technical Support Personnel

Training Project Director
Training Project Staff/Trainees
Training Project Staff (Nontrainers)
Training Project Trainees (Staff members in training)

The functions to be performed include:

6.2.1 Trainee monitoring
6.2.2 Trainee instructional materials (nonseminar)
6.2.3 Trainee content seminar
6.2.4 Trainee field problems seminar
6.2.5 Trainee supervision/tutorial
6.2.6 Staff training
6.2.7 Clerical training support
6.2.8 Other trainee instructional experiences

PERFORMANCE CRITERIA AND EVALUATION PLAN

Performance Criteria

General

In this report, samples and forms of performance criteria for the six sets of objectives (See pgs. 9-16) are presented. One of the first tasks of management, in cooperation with the consortium institutions, will be the initial delineation, in full, of the performance criteria. By the end of the first 18 months of operation, it is anticipated the criteria will be tight in the sense of setting standards which, for example, would be applicable to 75 percent of the trainees 75 percent of the time.

Performance Criteria for the Impact Objectives

Sample Performance Criterion for Objective 1.5

Combining the graduates of the first three years of this training program, 80 percent will be actively employed in educational RDD&E for at least two years after graduation. Of that number, at least 75 percent shall meet criteria on situational assessment instruments and field reports regarding tasks and functions on which no more than 50 percent of a comparable control group with alternative, equally recent forms of training shall meet the same criteria.

Performance Criteria for the Training Objectives

Sample Performance Criterion for Objective 2.2

The relative proportions of trainees in development and evaluation programs, respectively, shall not deviate by more than 25 percent from the proportions estimated from the most recent available evidence as to regional needs, nor by more than 40 percent from the proportions estimated from the most recent available evidence as to national needs. Any deviations beyond these tolerance ranges shall be justified in terms of availability or lack of availability of trainees, sites, trainers, materials or employers.

Performance Criteria for the Design Objectives

Sample Performance Criteria for Objective 3.3

No more than 20 percent of the learning and instruction time of 80 percent of the trainees will be spent beyond a 20-mile radius of the project site, and no more than five percent of the learning and instruction time of 90 percent of the trainees will be spent beyond a 200-mile radius of the project site.

Performance Criteria for the Program Objectives

Sample Performance Criterion for Objective 4.1

Ninety percent of the component tasks within the parentheses will be completed within ten days of their deadlines; 100 percent of the component asks will be completed within 15 days of their deadlines.

Performance Criteria for the Subprogram Objectives

Sample Performance Criteria for Objective 5.1.2.2

The preliminary interview form will include information regarding present experience, professional aspirations, anticipated future job, and alternative possible jobs. It will not take longer than 90 minutes for completion by 75 percent of the interviewees interviewed by 100 percent of the interviewers. It will not take longer than 180 minutes for completion by 90 percent of the interviewees.

Performance Criteria for the Management Objectives

Sample Performance Criterion for Management Objectives in Connection With Function 6.1.11, Fiscal Control

With respect to fiscal control, each of the following individuals...will perform their assigned tasks...within three days of deadlines 70 percent of the time, and within ten days of deadlines 90 percent of the time. Reports will be filed on any tasks not performed within three days of deadlines with respect to problems in personnel function, completing deadlines, other problems, and suggested changes, in no more than ten days after the deadlines.

Evaluation Plan

General

The evaluation plan is based on three major concerns:

1. To provide periodically to the various audiences evidence of, and explanations for, the extent to which the objectives are being reached and modified.

2. To provide continuously information and decision loops leading to program modifications such that the program will more closely approximate its objectives.

3. To provide a basis on which other potential consortium members, and other training consortia, may determine the merits of replicating the program.

Types of Evaluation

Three types of evaluation will be employed in answering parts of each of the three concerns above.

1. Adaptive evaluation will be used for the monitoring, analyzing and adjustment of operations. The focus will be upon smooth functioning of relationships involving online logistics, procedures and arrangements regarding the management objectives and the subprogram and program objectives. In most cases, the scheduling of this kind of evaluation will be on short cycles of a few days to a few weeks.

2. Formative evaluation will be used for the cyclic improvement of components. The focus will be on trainee outcomes. The scheduling will be periodic, matched to the schedule for repetition of the particular component. The major concern is for assessing and developing the relationships among the six levels of objectives. Some instances of subjects and activities for formative evaluation would include an instructional package, a field problems seminar design, an experience in an instructional package and its consequences for field performance of a task, a competency assessment instrument, or a competency assessment procedure.

3. Summative evaluation will be used for conclusions about program results. The scheduling will be partly matched to the natural cycles and recurrences of program objectives and subprogram objectives, and partly matched to quarterly and annual reporting dates to the various audiences. There will be four elements for the summative evaluation effort:

    a. Relevance. How well are project activities related to project outcomes?

    b. Strength. How far toward stated goals are various groups moved by the activities of the project?

    c. Reliability. How consistently can this program, implemented as planned, make the same changes in the same type of trainees and other audiences?

    d. Robustness. How powerful is the program in yielding the desired results when the inputs and processes are varied?

Check List of Program Aspects

This classification describes the abstract array of aspects of the program which could be evaluated. Not all of these will be evaluated in equal depth. The priorities will be set on the basis of the priorities attached to each of the objectives and sets of objectives of the program.

1. INPUTS AND INSTALLATION CRITERIA, in the light of program objectives; ANTECEDENTS AND NEEDS

    a. Staff qualifications by positions

    b. Staff preprogram training

    c. Trainee selection criteria

    d. Trainee entry competencies

    e. Media

    f. Facilities

    g. Administrative conditions (project, school, university, field sites, employment sites)

2. PROCESSES AND OPERATIONS CRITERIA: TRANSACTIONS

    Trainee transactions with:

    a. Trainees

    b. Staff

    c. Media

    d. Facilities

    e. Administration

    f. Others

    Staff transactions with:

    a. Staff

    b. Trainees

    c. Media

    d. Facilities

    e. Administration

    f. Others

    Student-staff transactions with respect to the project objectives in terms of the instructional program

3. OUTPUTS AND IMPACT CRITERIA

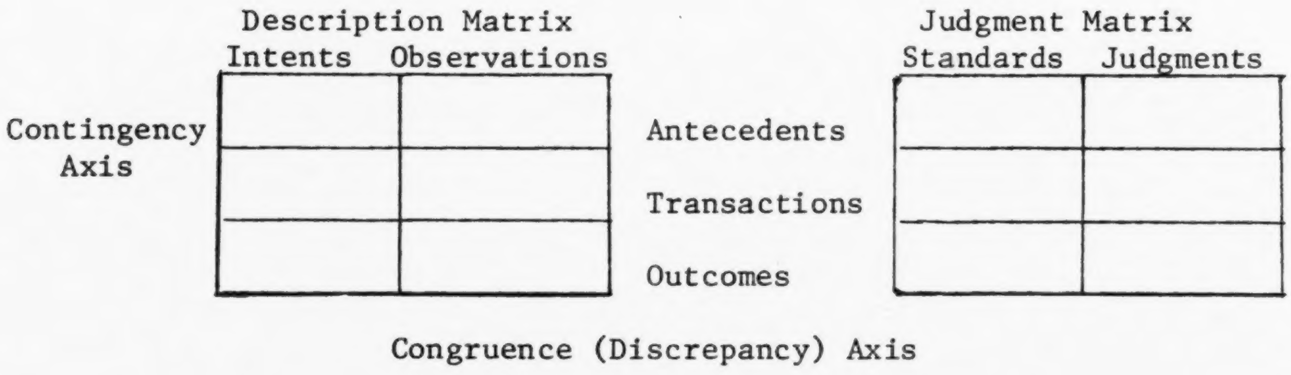
   a. Enabling objectives
   b. Terminal objectives
   c. Ultimate objectives
   d. Relationships among a, b and c
   e. Cost analysis
   f. Benefits analysis
   g. Cost-benefit analysis

Evaluation Staffing and Management

The resources available for evaluation planning, development, operations and monitoring during Year One, amount to three full-time employees. Year One will see heavy demands for evaluation planning and development. In subsequent years, the evaluation staffing will be decreased and decentralized. In the first year, however, site personnel with evaluation responsibilities will work very closely with central management. The planning and development will take place in the framework of the six sets of objectives, their sets of performance criteria, the six models for evaluation and the model for further evaluation planning. Responsibilities for coordination, leadership, development and implementation of evaluation are allocated in the charts illustrating training coordinating center functions and site functions. (See page IX) All aspects of the program's operations will be logged or recorded systematically, in order to provide basic data as to what is planned, what is done, and what happens.

1. Model for Impact Evaluation

The evaluation approach will be based on Stake's Model (1967).


Description Matrix
Intents
Observations
Judgment Matrix
Standards
Judgments
Contingency Axis
Antecedents
Transactions
Outcomes
Congruence (Discrepancy) Axis

2. Model for Training Evaluation

The evaluation of the training objectives also will follow the Stake model.

3. Model for Design Evaluation

   The evaluation of the design objectives will follow the Stake model.

4. Model for Program Evaluation

   The evaluation of the program objectives will follow Stufflebeam's context, input, process, product (CIPP) model (1968), which is geared to the provision of timely provision of credible information to the decision maker for practical decision making in context, yet has a "grain" or periodicity which is not so detailed as to be overwhelming in terms of demands on the evaluator and the decision maker regarding the five overall program objectives or "events" of this program. This program evaluation, using the CIPP model, will be basically a monitoring and reporting function.

5. Model for Subprogram Evaluation

   The evaluation of the subprogram objectives will be designed for assistance of short-term decision-making following the questions, criteria, information, decisions (QCID) paradigm of the discrepancy model of Provus (1969):

   a. The evaluator will formulate the basic Questions

   b. The manager will identify the Criteria

   c. The evaluation staff, program staff, agency staff and trainees will obtain the needed Information and prepare analyses and suggestions.

   d. The manager will make the Decisions. For the purposes of this program, a further Stake-like stage will be included. It is illustrated below.

   e. The evaluator, the manager and the other parties to the project will periodically make judgments as to the worth, appropriateness and adequacy of management decisions and of evaluation information.

6. Model for Management Evaluation

   The evaluation of the management objectives will follow the same model as that for the subprogram objectives, but will focus on timing, manner and manpower involved in decisions and operations rather than on their substance.

7. Model for Further Evaluation Planning

In the construction of more detailed evaluation plans, the objectives will be considered, in order of their priorities, analyzed in terms of following the categories, and the required resources identified. Then, evaluation activities will be selected within the constraints of time, money, manpower and schedules; PERT charts for the evaluation will be drawn up.

Evaluation Planning Categories

1.1 Objective
1.2 Performance Criteria
1.3 Applicable to
1.4 Relevant conditions
1.5 Intents and standards

2.1 Decisions to be made
2.2 Who will make the decisions
2.3 When will the decisions be made
2.4 What information is required

3.1 What are the indicators
3.2 What method of observation
3.3 What sampling procedures
3.4 What population

4.1 What kind of instrument
4.2 Acquire or develop
4.3 Procedure for acquisition or development

5.1 When are the data collected
5.2 By whom
5.3 Actual sample

6.1 When are the data analyzed
6.2 By what procedures
6.3 By whom

7.1 When are the results interpreted
7.2 By whom

8.1 When are summaries of results and interpretations to be ready
8.2 For whom
8.3 How distributed
8.4 By whom

9.1 Who monitors this evaluation
9.2 By what means
9.3 When

10.1 Who evaluates this evaluation
10.2 By what means
10.3 When

11.1 Summary of manpower costs, by section
11.2 Summary of dollar costs, by section

It is expected that limitations of manpower and budget in the first year will demand a respectable segment of the evaluation effort to be devoted to developing the materials and procedures by which to evaluate the impact objectives. This accomplished, the program should be able to case a wider evaluative net in subsequent years. Fortunately, many of the training objectives and the design objectives are so tightly coupled to the impact objective that real limitations on evaluation resources will be less detrimental, in terms of scope of coverage, than is usually the case. The crux of the program and, therefore, the focus of the evaluation, is the notion of reality-oriented, competency-based and assessed, instruction in evaluation and development tasks to be performed by trainees in projects in educational and education-related agencies. Evaluation activities will contain, by necessity, elements of adaptive, formative and summative evaluation, as previously outlined. These activities will be within the capacity of the staff previously described; will be placed within an array describing all program aspects susceptible to evaluation; and will employ the models indicated for evaluation.

The decision-making approach for the use of evaluation information (results and interpretations) will follow that of Provus, in the short run, and will follow that of Stake, in the long run. The procedures and plans described should be adequate to meet the internal needs of the program as well as to answer the sponsor's concerns for feedback for program modification. In addition, they will provide useful information regarding the merits of the program for replication. Both quarterly and annual evaluation reports will be submitted; annual reports of costs and benefits will be made.

THE INSTITUTIONS IN THE CONSORTIUM

The members of the consortium who have committed themselves to the implementation of this training program are: the University of Washington, the University of Oregon, Oregon State University, the Portland Public Schools, the Northwest Regional Educational Laboratory, the Oregon Board of Education and Teaching Research.

At the end of September 1970 an Interim Governing Council was formed of top officials of each of these institutions.* This Interim Governing Council met every ten days to formulate policy, to establish tasks for the core design group, and to review, modify or approve the work of the design group. The Interim Governing Council will be superseded by the Governing Council (with very similar membership), assuming that this training program is funded.

The Roles of Each of the Institutions

As one of its initial tasks a document was prepared by the Interim Governing Council members stating the rationale for the consortium, and suggesting the roles of each of the members. (See Appendix B) While the details of the involvement and interaction of the institutions remain to be worked out, in general form the roles of each of the institutions can be simply stated. The universities are a part of the consortium because they are the only institutions in the states who run training programs as one of their primary purposes. They already have numerous field-centered training programs, of which this is an extension. They can be expected to legitimize these training programs through the granting of appropriate degrees to trainees, they can be expected to provide many of the training staff, and they have the capacity to attract highly competent trainees and to help in their placement after training.

The other institutions are, with the exception of Teaching Research, primarily involved in the consortium to become training sites. They have large numbers of existing projects in operation, and there is every reason to believe they will continue to have many operational projects. While they have some staff members who will become training staff, they need trained manpower and can be expected to contribute substantial money to the training program. Teaching Research has historically been involved in the design of new patterns for training RDD&E personnel. They are charged by the State Board of Education with the responsibility for serving as a catalytic agent to the State System of Higher Education. Thus, they are appropriately cast as the coordinating institution for the task of initially establishing the training program and phasing it into the operation of the university so that the training program may be maintained after the demise of federal funding.

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*The Deans of the Schools of Education of the Universities, the Assistant Superintendent for Evaluation of the Portland Public Schools, an executive officer of the State Board of Education in Oregon, and the heads of the Northwest Regional Educational Laboratory and Teaching Research.

THE TRAINING PROGRAMS PROPOSED

Developers and Evaluators

The Pacific Northwest Training Center proposes to train educational developers and evaluators. Demonstration/dissemination or diffusion is seen as a critical function, especially in the sparsely settled regions of the Northwest, but a sufficient number of questions remain unclarified to preclude its selection as a primary focus. For example, it is not clear whether diffusion should be performed by developers or by diffusers; it is not clear whether it should operate on a project basis, or on some larger institutional basis. Therefore, it was decided to delay planning to train "pure" diffusion personnel and, instead to identify key competencies of diffusion and integrate them into the evaluation and development training programs in a small, selective way.

With respect to the training of "pure" research personnel, it is felt that research training in a clinical training framework would produce personnel of a different cast from those produced in the classical academic setting. However, it is not clear what the immediate payoff would be to educational improvement of such personnel. Neither is it clear how many individuals trained in each way would best meet the long-range need for quality basic research in education. This need is not now being met by the products of conventional educational research and educational psychology programs. Given these ambiguities, and given the anticipated relatively low level of funding for educational research in the next few years, it has been decided to delay planning to train "pure" research personnel, but to identify key research competencies involved and to integrate these selectively into the evaluation and development training programs.

Why the selection of evaluation and development competencies as the foci for the training programs to be made operational? The available training settings, the interest and ability of the staff in the various possible training sites, and the array of training resources of the consortium institutions were consistent with this dual emphasis.

Among the specific reasons for an emphasis on development were:

1. The "interdisciplinary" nature and team quality of development projects requiring competencies across the areas of RDD&E, make development projects ideal training sites and appropriate contexts in which to employ the clinical, field-centered notions of training.

2. Development is presently perceived as a high priority need, nationally and regionally.

3. The focus of the Northwest Regional Educational Laboratory is development, and it has many projects available as training sites.

4. Work in instructional systems, simulation and gaming, and situational assessment at Teaching Research has laid a foundation for the specification of competencies in development, and the development of materials and procedures to train individuals in those competencies.

Among the specific reasons for an emphasis on evaluation were:

1. The high and increasing national and regional demand for evaluation, both from political and professional sources.

2. The wide availability of ongoing evaluation projects in the region for use as training sites, particularly within the Portland Public Schools and within Teaching Research.

3. The intensive, more narrow, and fairly structured content and atmosphere of evaluation activities, as contrasted with development activities, provides both a different forum for the use of the clinical model and increases the likelihood of exposing trainees to a diversity of project structures.

4. The Evaluation Training Materials project at Teaching Research has made substantial progress in specifying evaluation competencies, producing training materials and training procedures for these competencies, and implementing evaluation training.

5. Effective work in all areas of educational RDD&E will require competencies in management monitoring and measurement of impact, both of which are usually classified under evaluation competencies.

6. There is a likely interaction between evaluation and development, so that as the quality of evaluation projects increases, there will be an increasing demand for development specialists who can take the evaluation data and recycle the findings into improved products. Development training programs should run simultaneous with evaluation training programs.

For the general and specific reasons given above, evaluation and development have been selected as the two foci for the training programs which are being designed.

Generalists and Specialists

Within each area of competence, development and evaluation, there will be two kinds of training programs, "generalist" training and "specialist" training, making a total of four separate training programs. A generalist is trained to a fairly high level of competence across all of the eleven functions of either development or evaluation. A specialist is trained to roughly the same level of competence, but in only two or three functions of competence within development or evaluation. A specialist is trained to the same level; he is simply not as broadly trained. Since the specialist has to cover fewer areas of competence, it is assumed that fewer different field placements would be necessary and that a person entering specialist training would either have a lower level of entering competence than the generalist, or would not remain within the program for as long a period of time.

Initially, there will be fifteen trainees, approximately half in development and half in evaluation. Of the fifteen trainees, approximately twelve will be in the generalist training programs, and three in specialist training. With the enormous need for evaluation and development personnel in education, the conscious choice was to concentrate originally on fairly highly trained generalists who would have the capacity to function independently in the field, and who, over a period of time, could be expected to create a need for specialists. As the training programs continue, it is anticipated that somewhat of a decline in the number of generalists trained and an increase in specialist training as the number of projects available in the field are sufficient to insure that a specialist would be employable.

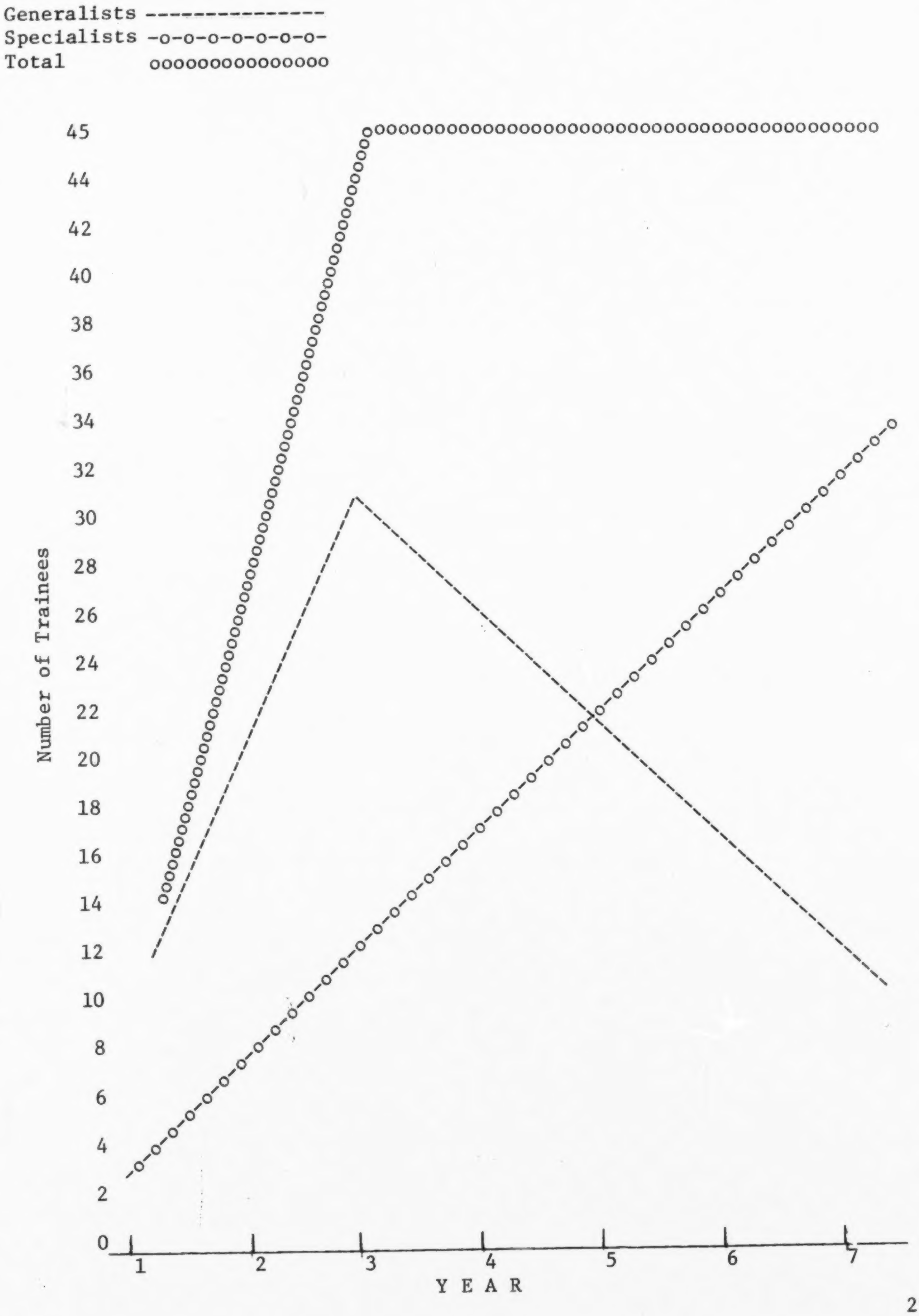
Initially the training program will start with three training sites, each of which will have approximately five trainees. However, the site is ideally designed for a complement of fifteen trainees, and over the three years of full federal funding, the intent will be to increase gradually to a total of forty-five trainees. If the cost control of the operation proves adequate for expanding the number of sites, again, an average increase of fifteen trainees per site can be anticipated, and the programs might grow to as many as 105 trainees if all seven members of the consortium became training sites.

Long-Term Training

The training model, with its emphasis on productive work within projects, is not appropriate for short-term institutes or workshops. Projects and project sites need continuity of personnel assignments. No trainee will be admitted for less than six months, even in the specialist training programs. It is anticipated that generalist training will involve several training project assignments, and will require at least a year. Moreover, the recruitment and induction activities alone will require considerable time and effort on the part of both the trainee and the staff. It will be necessary therefore to set a minimum length of time the trainee will remain in the program.

CHART 1

Expected Relationship Between Number of Generalists and Number of Specialists, Assuming Three Sites



A GENERALIST TRAINEE IN A DEVELOPMENT PROGRAM: A SIMULATION

Trainee Recruitment (Event I)

Frank Finch is a 30-year-old-male, married and has two children . . . Bob, 7, and Mary, 5. His education consists of a BA (1963) and an MA (1966) from Oregon State University. Both degrees were in education with a concentration in mathematics. Recently he completed some coursework in computer science and has worked part time during the summer months at the Northwest Regional Educational Laboratory (NWREL) as a programmer. He has taught at the secondary level (mathematics) in the Portland Public Schools for the past five years and has been evaluated by his administrator as an outstanding teacher. His present salary for the school year (nine months) is $8,700. For two consecutive summers, he was assigned to a curriculum improvement project in the area of mathematics; and his contributions were judged to be superior.

On March 5, Frank received a brochure from Teaching Research (TR), Monmouth, Oregon, describing a training program in educational development and evaluation to be conducted by a consortium which includes, among others, the NWREL and the Portland Public Schools. He called the Executive Director of NWREL to discuss the program and was encouraged to make application. His immediate superior in the school district also suggested that he talk to the district Assistant Superintendent for Evaluation to obtain details regarding the program and future possibilities for placement within the district upon completion of the training. On March 11, Frank completed the application form which was included in the brochure and mailed it to Teaching Research.

In return, Frank received a letter on March 16 from TR indicating that a meeting has been scheduled for all applicants on Saturday, March 20, in Monmouth. This was to be an all-day meeting, and his expenses would be paid by TR.

Upon arrival Frank found himself among a group of 40 applicants, some of whom he had met previously in school or at educational conferences. The program began with introductions of the program staff followed by a comprehensive explanation of the goals, training plan, agencies involved, benefits to be gained and sources of support. He saw a slide-tape presentation showing what the training program would prepare him to do. The tape presented job descriptions of individuals presently engaged in development and evaluation and their activities as they function to produce a product.

Frank quickly realized the extensiveness of the kinds of tasks which people perform in the areas of development and evaluation; and he was particularly interested in the area of development. The slide-tape had shown a rough profile of activities performed in both of the areas; and, with a high degree of interest, Frank visualized himself actively engaged in development tasks.

Following the slide presentation, the total group was divided into several discussion groups according to interest area. Each discussion session lasted for a period of one hour. Frank found the development area to be much more to his interest. Within each group, a program staff member answered questions and related the profile of activities to the personal background of each applicant. He briefly questioned each individual as to present experience, professional aspirations, anticipated future jobs and alternate job possibilities. At the end of the small group sessions, each applicant was scheduled for an individual interview with a member of the staff during the afternoon. At this interview, a rough profile of Frank's background, experience and aspirations was generated which included a list of reference people who could be contacted for further information regarding his performance and for a transcript of his training from an educational institution. At the close of the interview, Frank was informed that there would be a preliminary screening of candidates and that a tentative acceptance or rejection decision would be made within the next two weeks. He was told that he would receive a letter of notification of this decision by April 5. (Twenty-five candidates would be selected out of the forty.)

The program staff met Monday morning to discuss their reactions to the candidates and to plan their week's schedule for gathering additional data on each applicant. Contacts (phone) were made with reference people to schedule personal interviews when feasible. A folder for each candidate was developed which included applicant's transcript, rough profile, interviewer's assessment, reference narratives, application and any materials which were pertinent to judging the potential of the applicant.

During the following week, the program staff made a summary assessment of each candidate. Each candidate was classified according to interest area (development or evaluation) and ranked as to potential as a trainee. Twenty-five candidates were chosen (thirteen in development and twelve in evaluation) to participate in the intake program. Four more were selected as alternates (two in each area) in case of non-acceptance. Letters of notification were mailed to all candidates on April 4 indicating tentative acceptance, alternate status, or rejection.

A letter arrived at Frank's home on April 6 indicating: (1) tentative acceptance into the Development Training Program, (2) plans for the intake process to be held April 22-26, (3) notification that a final decision of acceptance or rejection of a trainee would be made May 5 and (4) notification that a return letter of acceptance to participate in the intake program had to be received at TR by April 12.

The Induction Process (Event II)

Frank arranged to come to Monmouth for the one-week intake process. Arrangements were made by TR with the institution where he worked either to pay for a substitute for loss of the work he would have accomplished for the week or to pay him for his loss of salary.

On arrival Monday morning, Frank met a group of twenty-five trainees and the members of the training staff. The group was informed that the training program only had room for fifteen in the first training group and that the intent of this week was to select the fifteen who could benefit most from the training program and the training experiences which the program had available. An expanded version of the slide-tape presentation from the previous meeting was played again, reviewing the nature of the training program and explaining in addition the competency profiles and the function which they would play in the program.

The remainder of Monday and all of Tuesday were spent in detailed individual trainee discussions with a member of the training staff. Together, they completely filled out a competency profile on each of the trainees. Frank found the process lengthy but clear-cut. If he did not understand what the meaning of any particular task was, he was given a brief explanation with an example. The training staff member had available an example for all of the tasks. With each task, he was asked if he had ever done anything like it. If he felt he had, he was asked to describe it. If the training staff member agreed his experience was a relevant example, he was asked to describe the conditions under which he did it and how well he felt he did it. These ratings were entered on the rating form, and Frank and the staff member jointly agreed what to rate each item.

When the interview was over, Frank was given a copy of his profile. The formula for determining the "score" of his profile was explained, and he was asked to calculate it for his profile to be sure he understood. Then he was told the "score" he would need to complete his training program, and he was asked to work individually to come up with an initial exit profile or proposed profile which would satisfy his own interests and the demands of the training program.

Frank spent the next day working up a profile of the competencies he would like to have when he left the training program. It was immediately obvious that he could satisfy the demands of the training program in many, many ways. He looked at the profiles of developers presently employed, and he attempted to see if he would like to work toward a profile like one of theirs. He examined the profiles of job-slots which had been identified in the immediate region. He looked up and read through examples of some of the tasks which weren't clear to him. Several staff members were available to help him whenever he had any questions. By the end of Wednesday, he had a proposed profile which seemed satisfactory both to him and to the requirements of the training program.

On Thursday, all of the trainees found themselves confronted with a set of problems, a different set for each trainee. It was explained that the training staff wanted a way to check the self-perceptions of the trainees. With this goal in mind, two of the competency ratings from each trainee's entrance profile were selected at random. From these, simulated problems had been constructed for the trainees to work. There was a large library and other reference materials available. Frank found the simulated problems very similar to ones he had worked on the summer before at NWREL, and he was able to complete them rather quickly. For one statistical calculation, he had to find some formulas in one of the statistics books; but that wasn't hard. It appeared, at least from his work on the simulated problems, that perhaps his self-perceptions of competence had been a bit understated.

On Friday, Frank again had a lengthy conference with one of the staff members. He was asked about some of the aspects of his proposed profile.

Some changes were suggested. He agreed with two of the suggestions and defended his own choices on the other two. The staff member made it clear all along that the original profile did satisfy the demands of the training program, and that possible changes were only suggestions.

After he and the staff member had agreed on the proposed profile, Frank was asked to indicate the competency areas on which he would like to work first. He selected three, and rank ordered them. He was told that if he was chosen as one of the fifteen for the program, these selections would be used to determine his first field placements.

Approximately one week later, Frank was notified that he had been selected for the training program. He was told that the summer program would begin on June 15; and, in addition to other information (location, length of the program, pay, facilities, etc.), he was sent a reading list which was appropriate to the three competency areas he had selected for initial concentration. He was told there would be a reading and instructional program to accompany the summer training experiences. It would be based on the enclosed list of books and materials. Anything he could do to familiarize himself with the items of the list would be beneficial to him.

He sent his acceptance and proceeded to get ready for the summer.

The Trial Projects (Event III)

When Frank reported for the summer project, he found only four other trainees. Three special summer projects had been created especially for the training program. Each of these involved working with trainee expectations for the next year, the staff training program and procedures for handling all of the details of the training model. Frank and four others were assigned to one of the projects, centered at Teaching Research.

The project was definitely a project. Teaching Research was under contract to develop four simulation games for use in high school classrooms in the state, and the work had to be completed in five weeks. However, since Teaching Research had already produced a large number of games, the tasks to be done and the competence necessary to do them were well known. It was an ideal project for a training activity. The staff of the project were the ones who would direct the training program in the field settings after the summer.

When he arrived, Frank was assigned an advisor. He was told that he would have regular conferences with his advisor, and they would jointly review his work at every conference, making judgments as to its quality and determining the kinds of learning experiences relevant to its improvement.

The initial project meeting was held the first day. The project director explained the tasks to be done, the timelines to be met, and assigned work to everyone, including Frank. There were some assignments open for discussion; there was time carefully taken to explain why the project was planned the way it was. But, clearly, it was a real project; and work would have to be produced on time to meet its requirements. Frank's first task was to take the results of a set of interviews conducted with teachers who had used the previous simulation games and reduce and analyze the data to guide the design and development of the present games. He was to report a preliminary analysis on Friday of the first week, complete with recommendations.

Two seminars ran during the summer, one directed at the resolution of problems the trainees were facing in accomplishing their work, the other at the "clinical" problem of how to derive learning from ongoing contexts. These met once a week for three hours in the afternoon. Conferences were scheduled with his advisor twice a week. Other than that, the striking thing to Frank was how much he was on his own. He had a job to do. So did everyone else. It was up to him to figure out a way to get his job done. He consulted his list of instructional materials, found some on data reduction, and headed off for the library to get started on his task.

Wednesday morning was his first scheduled conference with his advisor. By then he was intensely frustrated. He had read through the interviews, but he had no idea what was important or how to put it together for the meeting on Friday. In a two-hour conference, his advisor helped him sort it out: they determined the objectives of the games in the project, the aspects of the design which might be changed and the parts of the interview possibly relevant to each change. They developed at least a semblance of a form for recording the coding of the data, and agreed that just something as simple as frequency counts of various suggestions would help. By the time he left, he had some sense of how to proceed.

By Friday of the first week, he had managed to do a first coding of the material; and he had the frequency counts of various suggestions available for distribution. However, at the staff meeting, the project director asked him directly what advice he had for the designers, based on the interview data. He had neglected to formulate a set of suggestions, based on the data. The director told him that he should have, as it would have saved them a lot of time to have a set of suggestions, supported by the data, rather than to have to determine the suggestions from the data. Nevertheless, he took a portion of the meeting and with the staff went over the coded data, determining the substance of the suggestions and discussing whether and how these suggestions might be incorporated into the design of the games. Frank felt a modest success. He also watched how they developed suggestions from the data.

On the following Tuesday, during the afternoon seminar, Frank's work was one of the topics of discussion. After he presented what he had done, he was criticized from a variety of different points of view, the main one being that he was the only person who rated the interviews, and that at least he should have checked his own reliability, as well as having someone else do a set of ratings to compare to his own. By the end of the seminar session, he understood the various problems created by his procedure and had developed some possible approaches to overcoming these problems.

The Tuesday afternoon seminar continued this way during the entire summer. Each person's work was brought up for discussion; and suggestions for improving it were made, based on a broader view of the nature of this kind of problem and the general principles of evaluation, or development involved. They were informed that this kind of seminar would continue during the entire training program. By the end of the summer, procedures were established for easily formulating an agenda based on the work that each trainee had been doing; and staff members prepared to teach the seminars around the topics which arose from trainee work. In many cases, trainees were given assignments after the seminar to partially redo their work to test whether they understood the nature of the problems and how to overcome them.

The Thursday afternoon seminar concentrated on the problems of the identity of the trainees in an operating project, and the development of strategies for dealing with problems, be they interpersonal problems, learning problems or ethical problems. Regular group-process work was done to deal with interpersonal tensions. Possible critical problems in the relationship between a trainee and the site institution where he would be working were discussed, roleplayed and appropriate strategies determined. Procedures for handling trainee dissatisfaction with any aspect of the training program were established and tested in roleplay situations. Staff and trainees worked on their relationships, on the best way to provide supervision, on how to tell a trainee that his work was unsatisfactory. Interviews in which the trainee's negotiated profile was reviewed were acted out, and the proper procedures discussed. In the course of the summer, the seminar became the place where virtually any problem involved in running the project or the training program could be brought up; and the staff and the trainees reexamined the way it had been handled and how it should be handled in the future. By the end of the summer, Frank felt much more secure. He knew he would have problems, both in completing work and in dealing with the dual role of trainee and project staff member. Still, he was confident that he could deal with these problems; and he trusted the training staff to help him.

During the last few days of the summer session, Frank and his advisor held a conference to review and revise his proposed competency profile, based on what had happened during the summer. Bacause of his work during the summer, he had made considerable progress in the area of reducing and analyzing data. He was well on his way toward the competency level he had originally set for himself. He again was asked to select three areas on which to concentrate and to order them according to his preference. He decided not to list reducing and analyzing data again, but rather three others. He was told that he would be notified soon as to where he would begin work on September 1, and on what area of skills he would work.

Actual Project Assignments (Event IV)

Shortly before September 1, Frank received a large packet of information about his first training assignment. All of the trainees' selections of their preferred areas of concentration were matched with the available training experiences in designated training projects, and a procedure of maximum fit was employed. Frank was assigned to a project in the Northwest Regional Educational Laboratory which would offer him the chance to work on his second and third choices of competency areas. He would have to wait until later to work on the competency area he would have preferred most, but he was not dissatisfied.

He received a copy of the project proposal, examples of all of the documents which had been produced so far by the project, information as to where the project was in its timeline and the tasks which he would be expected to do. He was informed that he was scheduled to be with that project until January 1, and that it was expected he could develop to his negotiated level of competency in the two areas by then. He also received the name of his supervisor, the name of the training project director and the name of the training site coordinator based at NWREL. At NWREL, the training project director and the training site coordinator were not the same person, though at some other institutions they were. His supervisor had not been at Monmouth during the summer, but had been trained in a similar trial project in Portland. His supervisor (or staff/trainer) was one of the staff of the project on which he would be working.

He carefully studied the materials and got a good sense of what the project was about and what it was trying to do. He even found he had some ideas for improving the work already done which was not strictly within the range of tasks he would be assigned, and he made a note to tell the staff members responsible for them about his ideas.

He arrived at NWREL on the designated day, and met the people involved in the training project, as well as his training site coordinator. During the two initial days, he was in an almost continuous series of meetings, either with the staff of the project to which he was assigned, or in meetings of all the trainees at NWREL (five, on three projects) with the training site coordinator. They received a comprehensive orientation to the institution itself--its objectives, its funding base, the range of activities, and where their particular project would fit into the overall work of the institution.

Frank also had a lengthy meeting with his supervisor, in preparation for the first assignment of a task for him to do. It turned out that activities at the site would run similarly to what they had during the summer, with two seminars per week, regularly-scheduled conferences with his supervisor, regular staff meetings and deadlines to meet. However, the press of work was expected to be substantially greater, and the support available somewhat less. He would be more on his own, and expected to get his work finished. Fortunately, there was an even more complete library and set of instructional materials than had been available at Monmouth (it had been added to since the summer); and he was well trained in using the materials.

The materials under development by the project to which he was assigned were to train students to use computer terminals located in schools in the area. The materials were already at a prototype stage, and he was assigned the task of determining the type of population which ought to be involved in testing the materials, a population which would provide the maximally useful feedback to the developers. He was to describe this population in a manner that the people in the cooperating schools could seek out some students who fit the description.

His four months at NWREL passed rapidly. Once, during the first month, he had to protest since he was given the same type of work three times in a row, in spite of the fact that he had done well on both of the first two times he tackled that task. He discussed the matter with the training site coordinator, pointing out that he had seven types of tasks which he had to complete, and he couldn't spend all of his time doing only one. The training site coordinator and the training project director conferred on the matter. The feeling of the training project director was that he needed the job to be done and Frank was not only the only person who could do it, he could do it well. After discussing the issue of what Frank needed, they reached an accomodation by which Frank would work on a different task, while supervising one of the other trainees learning how to do the one with which he was competent. It was extra work for Frank, but he recognized that he would learn the skill even better if he had to train another person.

One task Frank botched badly. He was supposed to arrange for and conduct a field test of a set of the materials in one of the test schools. He met with the principal of the school and arranged for the test, but he neglected to work closely with the teachers and assumed that the principal had communicated the intent of the test to the teachers. The principal had not. Furthermore, there were rumors about the ill-effects on students of working with machines, and when Frank arrived to test the materials, the teachers were actively resisting and refusing to allow their students out of class for the test. Several of the regular project staff had to be called in to patch things up, and to restore the relationship between NWREL and the school. The test was finally conducted, but it was not a good test.

Frank was defensive at first but finally admitted that he had not done a lot of things he should have. The staff was supportive of his attempts to determine what he should do differently. He felt he had probably learned more from the mistake than from the things he had done well. The staff was unable to arrange another attempt for Frank to set up a trial field test, so that area of Frank's competency profile remained unfulfilled; he would have to try again on some other project. Overall, however, Frank felt a great deal of confidence in his ability to handle the kinds of tasks he had been given, and he had learned a great deal about the Laboratory.

Just before Christmas Frank had another lengthy conference with his advisor, this time again to examine and revise, if necessary, Frank's competency profile. During this discussion Frank did make some changes. He changed somewhat his original emphasis on statistics and data analysis, and increased his proposed levels of competence in the areas of management and interpersonal relations. He then selected three more areas, and ordered them in terms of his preference. Approximately a week later he received a notice that he had been assigned to a project at the University of Washington for the next three months.

Termination Process (Event V)

Frank remained in the program for sixteen months. Before that time he had built up his competencies in all of the areas of educational development, and he had attained the profile levels he had specified. However, toward the end of the first year the placement service of the training program had reported to him that an employer was looking for a man with a profile of competence similar to his. He had made contact with the employer, and through mutual agreement he remained in the training program for an extra four months to gain additional competence in one area which the employer particularly wanted. The employer agreed to pay most of the costs of Frank's additional training.

When Frank left the program, he received an official competency profile, listing the work he had done and the competency levels he had attained in each area. Further, his work was reviewed by the universities involved in the consortium, with particular reference to the seminar work related to his field experiences, and he was granted a second Master's Degree, this one in Educational Development. As he left, he was informed that the training program staff would be very pleased if at any time in the future he wished to apply for readmission to the training program.

RECRUITMENT, SELECTION AND INDUCTION

A brochure will be designed and produced by the project staff with the assistance of the Northwest Regional Educational Laboratory (NWREL) containing a description of the members of the consortium, the goals of the program, characteristics of those goals, who is eligible to apply, deadline dates for application and benefits to be realized by trainees. The brochure will also contain an application form designed to obtain specific information about the candidate.

Brochures will be distributed nationwide to Schools of Education in Colleges and Universities, chief school administrators of public schools, professional associations, state departments of education, and regional educational laboratories. Efforts will be made to open the program to minority personnel within each of the agencies by the inclusion of a cover letter to the agency contact explaining the need for representation from all racial and cultural groups.

When all applications are received at Teaching Research (TR), they will be classified according to area of interest (development or evaluation) and ranked within classification according to qualifications as indicated by information contained in the application and from personal references. An initial screening of applicants will be made; twenty candidates will be selected for each training area (development or evaluation). The forty candidates will attend a one-day conference designed to give them a comprehensive picture of the goals, training plan, agency involvement, benefits and sources of support.

A slide-tape presenting a profile of tasks performed by individuals holding positions in development and evaluation will be presented, followed by an in-depth discussion of various types of positions in relation to the candidates' personal interests, backgrounds, and experiences.

Individual interviews will be conducted during this conference by trained interviewers who will gather additional data regarding the applicants' present experiences, professional aspirations, anticipated furure jobs and alternate possible jobs. A rough profile of each applicant's background, experience and aspirations will be developed, including a list of reference people who could be contacted for further information and for a transcript of his previous training.

A follow-up interview of all references for each candidate will be made by the program staff through personal or telephone contact. A folder containing the candidate's application, transcript of training, rough profile, reference narratives and the interviewer's assessment of the candidate's potential will be compiled.

Upon completion of the candidate's folder, a summary assessment will be made by a program staff member and presented to the total staff for classification and ranking. Each candidate will be classified according to development or evaluation and ranked as to training potential. Of the forty original applicants, twenty-five candidates will be selected as interim trainees; approximately half will be in development and half in evaluation. All applicants will be notified of their acceptance or rejection immediately following the selection.

The twenty-five interim trainees will then meet with the training staff for one week at Teaching Research in preparation for entering the training program and for the final screening of the candidates. Fifteen trainees and two alternates will be selected from the twenty-five candidates who participate during this five-day period. Activities planned for this week include orientation, completion of a self-rating competency profile, scoring of the profile, completion of a proposed profile, verification of competency self-ratings and the final determination of an entering competency profile, modified by the verification process.

These activities will be accomplished by the following procedures. Extensive interviews will be conducted with each trainee by members of the training staff to complete a competency profile on the candidate. This profile, when complete, will show a graphic display of the candidate's assessment of his present competencies in relation to the tasks specified for a competency area. An initial competency score will be calculated jointly by the candidate and the staff member as the result of this assessment. From this initial assessment, an exit profile or proposed profile will be developed by the candidate with the assistance of the training staff. This profile will satisfy the trainee's interests and also will achieve the demands of the training program.

The initial assessment of competencies then will be verified through a series of simulated problems which will be presented to the trainees for solution. These problems, formulated by TR staff, will be selected for each trainee to solve based upon his initial competency profile. After verification of the candidate's competency profile, a final summary evaluation will be made by a training staff member and the results presented to the total staff for ranking. The top fifteen candidates will be selected for induction as trainees, with two alternates chosen in case of non-acceptance among the first fifteen.

THE OPERATION OF THE TRAINING PROGRAMS

The Need for a Special Training Site

A great many universities have training programs requiring field experiences. Often, field experiences have only the most minimal supervision, and that of a sporadic nature, with only minimal training of the regular personnel at the site to engage in and support the training activities.

The problems of field experiences are well known. They range from the incapacity of the sponsoring institution to provide sufficient help for a trainee if he gets into trouble, to the tendency of the field placement organization to exploit the trainee and to use him where it suits the organization best, regardless of the training needs of the trainee. Many institutions involved in field-centered training are attempting to cluster trainees for better supervision, to train their own traveling supervisors as well as the field institution's staff in the techniques of supervision and training, and to provide some sort of linkage seminars or other instructional devices which enable the trainee and, indeed force the trainee, to reflect on his experiences in the field.*

This training program proposes to solve the problems of field-centered training by creating a number of carefully planned mechanisms. A central feature is the creation of special training sites, in which training projects operate side by side with other nontraining projects at that site. Procedures and working relationships among the various personnel at the site will be established to guarantee effective supervision, and to protect the trainee from exploitation. Sufficient competence will be present at the training site to carry on most of the instructional program, and the supervision.

Each site will have a resident training site coordinator, who will hold a joint appointment of at least the Assistant Professor level with one of the universities in the Consortium. Each of the designated training projects (usually five) at a particular site will be given additional resources to free one staff member half-time to supervise trainees in the project. This will give each training project a staff/trainer, a person who simultaneously works on the project and supervises the work of the trainees. The site coordinator is responsible for the training and supervision of the staff/trainers, for running the seminars for trainees which force them to reflect upon the work and experience they are doing, and for maintaining working relationships with the training project directors.

The relationship between the training project directors and the training site coordinator will be such that a conflict between the needs of the trainee and the needs of the project will be discussed by the project director and the site coordinator, and agreements determined jointly. If no agreement can be reached, the training site coordinator's view will prevail. In any conflict between what is good for the project and what is good for the trainees, the needs of the trainee must ultimately prevail.

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*These comments are derived largely from personal conversations with directors of teacher-training and educational administration programs.

It is hoped, however, that by a procedure of open discussion of such conflicts, the project as well as the training program will be mutually strengthened. However, while the training program personnel will give top priority to the needs of the trainee, the welfare of the training projects and their directors must not be jeopardized. Alternatives must be provided to help in case the poor performance of a particular trainee jeopardizes a particular project. Several mechanisms will provide this security. Staff from the training program will be on call to help out in any critical case. Moreover, trainees who have demonstrated skill at a task will be reassigned temporarily, if necessary, to help "bail out" the troubled project. Finally, the training program's advisors and consultants also may be used to provide help, if necessary. Training Project Directors will have at least these guarantees when they agree to have their project become a training project.

Each training site will be provided with sufficient support, both instructional materials and personnel, to mount a complete training program. Each site will build to a maximum size of fifteen trainees. The efficiency and quality of the training will increase as the number of trainees and the competence of the staff increases.

As a site develops, the expectation is that it will attract several kinds of personnel who presently are not often found in field settings. University professors might run projects in the field setting and become training project directors with trainees; graduate students in doctoral programs under such professors could work in the projects in the field setting and receive money for their work; doctoral candidates actually engaged in dissertation research might use a project or make their dissertation topic into a project; and undergraduates or early graduate trainees might work in the field setting to get some kind of feeling for what the professional role and responsibilities are of an educational evaluator or developer before they actually commit a number of years of training to such a direction.

Education has badly needed field training sites which in the final analysis are under enough control of the training programs to be constrained to provide consistently good training and supervision as well as a powerful place for professionals to work. The creation of such centers is the intent of this training design.

THE CONTENT OF THE TRAINING PROGRAM

General Needs and Strategy

The content of the training program and the form which it will take are derived from the intents of the consortium and the properties of the training model to which the consortium is committed. To repeat, the long-range intents of the consortium are:

1. To provide more RDD&E personnel in education
2. To provide better trained RDD&E personnel in education
3. To provide personnel trained with much wider ranges and levels of RDD&E competencies
4. To achieve these ends by designing and establishing new patterns for training such personnel
5. To achieve university commitment, and to establish permanent training programs of this nature independent of full programmatic federal support

The properties of the training model are:

1. An orientation to demonstrable competencies in actual work settings as the highest instructional priority
2. A focus on the project as a training setting
3. An emphasis on learning and instruction at project sites, from the very start of training
4. A commitment to negotiation and individualization with respect to procedures, materials and selections of subsets and sequences of tasks

To achieve these intents requires new ways to manage and use existing and new resources to identify and develop the required competencies, while simultaneously serving training project needs. Moreover, this must all be accomplished without sabotaging instructional standards.

A new set of information must be regularly generated to permit the training program to operate, and in this light the content of the training program must be organized to operate within and be responsive to these parameters. Among the kinds of information to be generated are:

1. Entry assessment of trainees' competencies
2. Ongoing assessment of trainees' competencies
3. Exit assessment of trainees' competencies

4. Planning of training for individuals

5. Monitoring of training for individuals

6. Evaluation of training for individuals

7. Comparing exit competencies of individuals

8. Describing instructional specialties of staff

9. Designing and describing instructional materials and procedures

10. Designing staffing and project selection in service areas to maximize training of students without stopping crucial services

11. Resolving issues and conflicts surrounding and within training programs

12. Facilitating career mobility and personal development

General Strategy: A List of Tasks

The general strategy to meet these requirements is based on a determination of the actual tasks that trainees will be expected to perform once they become professionals. This requires a detailed analysis of educational improvement strategies (research, development, diffusion and evaluation) in terms of the various tasks, similar and different, which are required for the implementation of these strategies. Field experience in projects, and supplementary instructional units then are focused around clusters of these tasks. Each task is related to (in fact stated as) a competency, and the successful completion of a task is defacto evidence of a competency.

The Conceptual Scheme for the Tasks of Educational RDD&E

If a classification of specific competencies in educational RDD&E is to have utility in these training programs, it must have the capacity to be used to support generalist training, as well as specialist training; and it must illustrate the variety of possible project contexts in which a particular kind of training might be received.

Such a form would have the following characteristics:

1. It should be exhaustive of the range of tasks in RDD&E

2. It should illustrate parallel competencies among RDD&E

3. It should identify competencies which are specific to research, development, diffusion and evaluation

4. It should be tightly coupled to observable products

A discussion of each of these criteria appears on the following page.

Exhaustiveness

The need for an exhaustive formulation is self-evident. It arises from a wish to construct a flexible program, adaptable to individual trainees and sites, yet describable and accountable. That aim could not be achieved without an exhaustive matrix of educational improvement tasks, various subsets of which will usefully describe trainee and employer status as to achievements, plans or aims.

In many of the formulations of, and differentiations among, educational RDD&E examined for the preparation of the list of competencies presented later in this proposal, deliberate or accidental selectivity resulted. Presumably, such a result was from factors in professional training and experience, institutional priorities, academic prejudices, field rigidities, and so forth. In deriving this display of the tasks of educational RDD&E the design group has tried to surmount these problems by a cross-referencing procedure and by proposing additional cross-referencing be carried on in the future. The cross-referencing involves inputs from trainees, trainers, employers and traditional manpower forecasters on a regular basis.

Illustration of Parallel Competencies

A formulation which illustrates parallels, similarities and redundancies in competencies across RDD&E is more useful than one which does not. This increases the manageability of training, for a trainee can gain needed experience in any one of several settings. For example, an evaluator-in-training need not be held to acquiring particular data analysis procedures only in the context of an evaluation project when a more accessible research or development project which offers the opportunity to perform happens to be available.

Furthermore, such a formulation vastly increases the clarity with which a trainee can identify possible jobs for which his training is appropriate. Such a display makes visible occupational mobility and career advancement possibilities.

Identification of Specific Competencies

A formulation which does not produce valid differentiation to make visible those tasks which are unique to research, development, diffusion or evaluation, will be neither useful nor credible. A trainee must recognize that certain competencies are essential and unique to each area.

Coupling to Observable Products

Many papers have been written over the years which differentiate and compare educational RDD&E. Most have examined the aims and objectives of RDD&E less carefully than they have examined procedures, training processes and standards for such training. However, such a point of view cannot bring accountability to the field of educational improvement. Rather, it could be asserted that the valid point at which to anchor the training process for educational RDD&E is output, or product end. This is consistent with the approach put forth by Gideonse (1969). In specifying the output end in detail, it is mandatory, of course, that the specifications be forward-looking rather than oriented solely to past practice, and that mechanisms be included for continually renewing the specifications.

But, for an initial, coarse, product-oriented differentiation among educational RDD&E, a relatively stable set of four definitions are believed to be feasible. We are not alone in this view. It is emergent in the Clark and Hopkins (1969) manpower report. It is reflected in the tentative draft technical papers of the Task Force on Training Research and Research-Related personnel of the American Educational Research Association (1970). Also, it is the basis for the current RDD&E survey and site visit project sponsored by the U. S. Office of Education. The operating definitions follow below:

TABLE 1

SPECIFICATION OF RDD&E IN TERMS OF PRODUCTS

A product is one of the following entities, in a form which may be transported and/or communicated from a project:

AREA OF ACTIVITY	RESULTANT PRODUCTS
Research (creation of generalizable knowledge)	Knowledge, which consists of facts, constructs, concepts, laws and theories that can be judged on the basis of the procedures used in their generation and the test of empirical verification.
Development (production of reliable technology)	Technology, which consists of procedures, materials, hardware and organizational frameworks that have a known degree of success in bringing about a particular outcome or in carrying out a given operation.
Evaluation (generation of trustworthy information)	Information, which consists of data that facilitates decision making in a specific context and that can be judged on the basis of the procedures used in its generation and analysis.
Diffusion (institution of successful linkage mechanisms)	Linkage mechanisms, which consist of functions and resources which transmit and apply knowledge, technology and information and that can be judged on the basis of product adoption and/or utilization.

A Problem-Solving Formulation

The approach which has been taken in order to produce a classification scheme which meets the above criteria is based on the observation that educational RDD&E activities are directed at the solution of problems. The issue then becomes one of defining a set of stages or steps that adequately cover problem-solving activities in general. If the logic is correct, application of the categories to educational RDD&E will result in a classification of competencies which meets the criteria given in the preceding paragraphs.

The set of categories into which problem-solving activities have been clustered is similar to that which one often uses in writing about a project. The categories have been applied to various lists, surveys and alternative structures in the literature or otherwise appear to be consistent with or simply related to the categories of most of these sources. It should be understood the order of the categories is the order common in many proposals and reports, but it does not necessarily signify that in planning, implementing or evaluating, one plans or executes the activities in the particular order used here, nor does one necessarily plan or execute them one at a time. The categories have been reviewed repeatedly by the working council and consultants.

The set of categories is given in Table 2. Detailed definitions and sub-categories are being prepared and applied to RDD&E. It appears to be the case that the categories, as developed, are exhaustive; illustrate both similarities and differences across RDD&E; can be tied to products, and have neither too few nor too many members in each cell.

TABLE 2

GENERAL FUNCTIONS IN EDUCATIONAL IMPROVEMENT

1. Problem recognition and articulation
2. Identification of relevant extra-project needs and purposes
3. Analysis of intraproject needs and context
4. Resource identification and acquisition
5. Resource adaptation
6. Application of initial products
7. Processing of results
8. Interpretation, recommendations, decision to recycle
9. Production of final products
10. Distribution
11. Management

If the list of problem-solving functions is used to form the rows in Table 3, the columns are formed by the RDD&E areas with one column reserved for the several problem-solving functions. Each of the 44 cells comprising the RDD&E functions is designated as an "area of competence." Each cell, or area of competence, will contain sets of particular tasks linked to products. The successful production of a set of products, linked to the tasks, will result in a competency rating in the cell.

TABLE 3

MATRIX OF FUNCTIONS AND PRODUCTS ILLUSTRATING NUMBERING SYSTEM

	PRODUCT AREA				
FUNCTIONS	0. General	1. Research	2. Development	3. Diffusion	4. Evaluation
1. Problem Recognition and Articulation	0.1	1.1	2.1	3.1	4.1
2. Identification of Relevant Extra-Project Needs and Purposes	0.2	1.2	2.2	3.2	4.2
3. Analysis of Intra-Project Needs and Context	0.3	1.3	2.3	3.3	4.3
4. Resource Identification and Acquisition					
5. Resource Adaptation					
6. Application of Initial Products					
7. Processing of Results					
8. Interpret Recommendations, Decision to Recycle					
9. Production of Final Products					
10. Distribution					
11. Management	0.11				4.11

As has been discussed previously, primary concern within this report has been placed on factors within development, as illustrated by Table 4, and evaluation, shown in Table 5.

TABLE 4

TWO SPECIFIC FUNCTIONS IN A DEVELOPMENT STRATEGY

2.1 Recognize that products (material or procedures) need to be developed, articulate the need, and decide to work as (or with) a developer.

2.2 Identify the values and priorities of the agency that will support the project and the group who will use the project. Draft a plan for developing the product that takes those values and priorities into consideration.

2.3 Determine materials, content, learning methods, equipment and staff needed to produce the product. Adjust the administrative structure of the project to permit management of these facilities.

2.4 Acquire the production capacity to produce the product.

2.5 Develop prototype products or modify existing products into a form that lends itself to testing and revision.

2.6 Field test prototype products and collect data on their effectiveness.

2.7 Reduce and analyze data collected during test of prototype materials.

2.8 Interpret data and decide whether further development is needed or if final form of product should be produced.

2.9 Produce final versions of products.

2.10 Duplicate and distribute final product, using the various distribution channels and other mechanisms available.

2.11 Manage a development project.

Table 4 should be compared to Table 3. Table 4 is the content of Column 2 in Table 3.

TABLE 5

FOUR SPECIFIC FUNCTIONS IN AN EVALUATION STRATEGY

4.1 Decide to pursue an evaluation strategy (as distinct from research, development or diffusion); working with/as an evaluator.

4.2 Identify objectives, values and priorities of external funding agency and external audiences. Initial parameters of the evaluation plan determine rationales.

4.3 Analyze, negotiate and assess needs, objectives, values and priorities of project, site, audiences, constituency. Detail the evaluation plan.

4.4 Identify and acquire, if appropriate, data sources and instruments.

4.5 Develop instrumentation, detailed plan and schedule for use.

4.6 Collect evaluation data.

4.7 Reduce, analyze and process evaluation data.

4.8 Develop interpretations of results and determine their adequacy.

4.9 Prepare evaluation reports.

4.10 Distribute information to decision makers and audiences.

4.11 Evaluate a management strategy for an evaluation.

It is anticipated that any particular row of cells would have some repetition of tasks. Those on problem recognition and articulation for research, development and diffusion, for example, would contain some of the same items as the problem recognition and articulation cell for evaluation (although perhaps different in emphasis) in addition to some different, product-specific items. Such a result helps specify what things a trainee will have to do, given an initial array of competencies, and what things he will not have to repeat to reach a given target array of competencies.

It is expected that any particular column of cells would have some repetition. For example, in the evaluation column, the use of a critical incident instrument might be expected in any or several of the functions (problem recognition, identification of purposes, analysis of the context, interpretation or distribution).

The list of general problem-solving functions in educational improvement (Table 2) may be used to generate parallel lists of specific functions in each column; that is, lists for RDD&E, which will be partly parallel and partly different. Such lists then may be used to generate the tasks to fill the cells of Table 3.

Tables 4 and 5 present the lists of specific functions for development and evaluation, designed for this project, which serve as the basis for the task and competency delineation.

DEVELOPMENT TASKS

The following lists of development tasks represent the content of the cells in Tables 4 and 5. (See "The Content of the Training Program"). These tasks form the basis of the competency profile. The completion of each task will either be tied to a product or to a set of behaviors easily observable in the field.

0.1 General Function: Problem recognition and articulation.

2.1 Development Function: Recognize that products (Material or procedures) need to be developed, articulate the need and decide to work as (or with) a developer.

Tasks

2.1.1 State a problem and articulate that which involves development of a product.

2.1.2 Choose the audience and setting at which the product is aimed.

2.1.3 State the problem in a compelling form to gain the interest of teachers, administrators or funders.

2.1.4 Clarify the problem (confer, redefine and set priorities).

2.1.5 Create tentative list of general instructive objectives for the product to be developed.

2.1.6 Survey field for suitable materials that might fill the need.

2.1.7 Create tentative list of indicators that the instructional objectives have been reached.

2.1.8 Create tentative description of materials to be developed.

2.1.9 Confer with colleagues and teachers regarding need for materials, their description, objectives, the context.

2.1.10 Confer with students of the proposed product regarding the product to be developed or the context in which it will be used.

2.1.11 Decide whether or not the problem can be solved.

2.1.12 Select an aspect of problem that is suitable to deal with.

2.1.13 Revise tentative descriptions of materials, list of objectives and list of indicators as a result of conferences with colleagues, students and an analysis of context.

2.1.14 State development objectives in performance language.

2.1.15 Decide the extent to which evaluation, dissemination and research will be a part of the development function.

0.2 General Function: Identification of relevant offsite needs and purposes.

2.2 Development Function: Identify the values and priorities of the agency that will support the project and the group who will use the product. Draft a plan for developing the product that takes those values and priorities into consideration.

Tasks

2.2.1 Research the characteristics of the students through field study.

2.2.2 Research the characteristics of the students through literature search.

2.2.3 Determine the broad constraints of the setting within which the product will be applied.

2.2.4 Select the specific students who will be employed in trials and use of the product.

2.2.5 State the context within which the students will use the product in order to guide the production of materials.

2.2.6 Refine the performance objective with respect to the characteristics of the students.

2.2.7 Locate field settings, consultants and agencies who will support the functioning of the project.

2.2.8 Locate sources of funding.

2.2.9 Find a funding agency who is most interested in the project.

2.2.10 Prepare a proposal in the proper format for the funding agency.

2.2.11 State instructional goals in terms of the operations and outcomes of developmental objectives.

0.3 General Function: Analysis of onsite needs and settings.

2.3 Development Function: Determine materials, equipment, content, learning methods and staff needed to produce the product. Adjust the administrative structure of the project to permit management of these facilities.

Tasks

2.3.1 Select terminal performance objectives and state them in relation to the audience for the product, the behavior to be learned, the conditions under which the learning will take place and the degree or criterion to be achieved (i.e., an abcd analysis).

2.3.2 Select enabling objectives and state them in terms of an abcd analysis.

2.3.3 Select the content of the enabling objectives.

2.3.4 Determine the sequence of the learning tasks.

2.3.5 Specify the types of learning.

2.3.6 Relate learner characteristics to content, sequence and types of learning.

2.3.7 Determine size of learning unit.

2.3.8 Determine strategy for accommodating individual differences.

2.3.9 Specify instructional strategies.

2.3.10 Identify and assign responsibilities to staff.

2.3.11 Confer with outside persons experienced at developing materials regarding the production needs for the project.

2.3.12 Determine the effect of external demands on resource and staffing needs. (Will skills, etc. be available when you need them?)

2.3.13 Identify marketing and production support capacities.

2.3.14 Establish budgets related to production needs.

2.3.15 Establish budgets related to dissemination needs.

2.3.16 Set timelines for tasks related to people on staff.

2.3.17 Estimate times for producing prototype and final products.

0.4 General Function: Identification and acquisition of resources (foundational and instrumental products and information) to be used.

2.4 Development Function: Acquire the production capacity to produce the product.

Tasks

2.4.1 Compare facilities available with specified instructional strategies.

2.4.2 Conduct technical review.

2.4.3 Determine specifications for diagnostic procedures.

2.4.4 Specify media forms.

2.4.5 Specify step-by-step procedures for reaching each enabling objective.

2.4.6 Determine availability of personnel.

2.4.7 Hire additional personnel and contact consultants as needed.

2.4.8 Provide opportunity for additional training of staff.

2.4.9 Specify alternative instructional methods.

2.4.10 Decide which products to farm out and which to produce inhouse.

2.4.11 Consult with technicians, manufacturer's representatives and others on equipment needed for the project. Have estimates made.

2.4.12 Determine production needs and select or acquire needed equipment.

2.4.13 Determine production site and select or acquire additional space as needed.

2.4.14 Prepare general job descriptions for the staff.

2.4.15 Negotiate contract for jobs to be farmed out.

2.4.16 Specify who determines time schedule.

2.4.17 Arrange for equipment maintenance.

0.5 General Function: Adaptation of the foundational and instrumental products and information into the form to be employed.

2.5 Development Function: Develop prototype products or modify existing products into a form which lends itself to testing and revisions.

Tasks

2.5.1 Specify performance measures.

2.5.2 Specify design for evaluation of complete performance package.

2.5.3 Prepare a comprehensive description of the unit to facilitate application.

2.5.4 Review specifications for management of instructional package.

2.5.5 Review entire instructional design specifications.

2.5.6 Conduct a technical review of the instructional design.

2.5.7 Review instructional design on basis of review.

2.5.8 Review evaluation design on basis of review.

2.5.9 Review instructional materials needed and on hand.

2.5.10 Purchase needed instructional materials.

2.5.11 Specify procedures for collection and development of instructional materials.

2.5.12 Develop prototype materials.

2.5.13 Conduct an informal evaluation of the prototype product with colleagues.

2.5.14 Conduct an informal evaluation of the evaluation procedures with colleagues.

2.5.15 Specify methods and means to be used by personnel during trial of instructional prototypes.

0.6 General Function: Application of the initial products (i.e., a trial).

2.6 Development Function: Field test prototype products and collect data on their effectiveness.

Tasks

2.6.1 Choose, or advise evaluator to select appropriate population for field test.

2.6.2 Acquire or advise acquisition of population for field test.

2.6.3 Call together producers and evaluators to confer about the field test regarding information to be collected.

2.6.4 Prepare categories of decisions to be made as a result of trials.

2.6.5 State specific questions regarding aspects of the prototypes on which field evaluators will collect information.

2.6.6 Choose or advise in the selection of appropriate procedure for field test of materials.

2.6.7 Arrange for persons to conduct field test.

2.6.8 Inform evaluators and producers of schedule when prototype materials will be ready.

2.6.9 Specify physical environment modification or adaptations (if any) for trial.

2.6.10 Train personnel in methods and means for conducting trial.

2.6.11 Conduct a trial on instructional system componants, collecting informal observational data.

2.6.12 Construct a design for collecting performance data on a form that can be analyzed.

2.6.13 Conduct trial of complete instructional system in a contrived (simulated) real context, collecting formal data.

2.6.14 Conduct trial in actual setting for which the materials are being designed, collecting formal data.

0.7 General Function: Processing of results (analyzed data).

2.7 Development Function: Reduce and analyze data collected during test of prototype materials.

Tasks

2.7.1 Reduce performance data.

2.7.2 Conduct informal analysis of data and state impressions of the results.

2.7.3 Prepare tables and graphs to display data.

2.7.4 Specify appropriate tests for a set of data (statistical or otherwise).

2.7.5 Interpret the results of tests on data.

2.7.6 Prepare the data to be related to decision-making categories.

0.8 General Function: Interpretation, recommendations, decision to recycle.

2.8 Development Function: Interpret data and decide whether further development is needed or if final form of product should be produced.

Tasks

2.8.1 Reassess the manageability of using the materials in the defined context.

2.8.2 Determine effectiveness of each learning task component comprising the instructional unit (i.e., diagnose which parts are not working).

2.8.3 Determine unrealistic or inadequate product specifications and how to salvage the product.

2.8.4 In consultation with evaluators and persons who set the instructional goals, review and clarify developmental objectives in a form that will facilitate product revision.

2.8.5 Decide whether or not to recycle or to finalize materials on each developmental objective.

2.8.6 Select strategy for recycling ineffective components.

2.8.7 Select strategy for finalizing the product.

0.9 General Function: Produce final products.

2.9 Development Function: Produce final versions of products.

Tasks

2.9.1 Estimate quantity to be produced.

2.9.2 Determine best form for production with regard to cost per unit and size of audience.

2.9.3 Select way in which the product will be put into production (type, printer, etc.).

2.9.4 Establish criteria for quality control on product.

2.9.5 Prepare product for publication and duplication.

2.9.6 Design or select packaging of final product.

0.10 General Function: Distribution.

2.10 Development Function: Distribute final product, using the various dissemination channels and other mechanisms available.

Tasks

2.10.1 Make final reports to funding and supporting agencies.

2.10.2 Solicit expert advice regarding dissemination of the product.

2.10.3 Identify target groups for the product in addition to the original target group.

2.10.4 Identify channels of communication that may facilitate dissemination of the product.

2.10.5 Determine dissemination strategy of product with regard to target group.

2.10.6 Disseminate product information to identified target groups.

2.10.7 Arrange a mechanism for the product to be sent or made available to target groups.

2.10.8 Collect data on how widely the materials are being used.

2.10.9 Select new strategies for product distribution if old are found ineffective.

2.10.10 Adapt product for different functions and target groups.

2.10.11 Arrange copyrights and distribution of royalties.

2.10.12 Arrange sales, sales contracts and determine cost/profit.

0.11 General Function: Project management.

2.11 Development Function: Generate and define management strategies for a development project.

Tasks

2.11.1 State organizational structure of staff.

2.11.2 Assign personnel to project.

2.11.3 State job descriptions, communicate these to staff and monitor the degree to which each person follows his assignment.

2.11.4 Develop patterns of staff interaction that facilitate the job.

2.11.5 Arrange for additional staff training.

2.11.6 State personnel policy of the organization.

2.11.7 Organize fiscal responsibilities (establish budget, assign responsibilities for making expenditures, monitor expenditures and close out the account at project termination).

2.11.8 Determine and initiate quality control procedures on product design, development staff performance and administrative routine.

2.11.9 Examine workloads and adjust them to meet needs and competencies.

EVALUATION TASKS

The following lists of evaluation tasks represent the content of the cells in Tables 4 and 5. (See "The Content of the Training Program") These tasks form the basis of the competency profile. The completion of each task will either be tied to a product or to a set of behaviors easily observable in the field.

0.1 General Function: Problem recognition and articulation.

4.1 Evaluation Function: Decide to pursue an evaluation, rather than a research, development or diffusion strategy; decide to work as or with an evaluator.

Tasks

4.1.1 Identify problem features which indicate the product sought is reliable information for decision making in context.

4.1.2 Identify decision-making client.

4.1.3 Determine division of responsibility between client and evaluator.

4.1.4 Identify existing evidence with respect to the problem as to informational needs and priorities of client and others involved.

4.1.5 Identify existing evidence of potential costs and benefits of the evaluation to those involved.

4.1.6 Identify sources and extent of onsite funding.

4.1.7 Identify sources and extent of external funding.

4.1.8 Acquire guidelines, forms, proposals, correspondence.

4.1.9 Identify other institutions involved.

4.1.10 Determine funding available for evaluation.

4.1.11 Prepare contract.

4.1.12 Negotiate contract.

0.2 General Function: Identification of relevant offsite needs and purposes.

4.2 Evaluation Function: Identify objectives, values and priorities of external funding agencies and external audiences. Determine initial paramenters of the evaluation plan: rationales.

Tasks

4.2.1 Review and summarize relevant objectives and priorities of external funding agency.

4.2.2 Contact external agency for clarification of agency priorities and agency view of evaluator's role.

4.2.3 List external audiences for the evaluation.

4.2.4. Specify relative evaluative emphasis that each audience places on inputs, outputs and costs.

4.2.5 Redraft present project objectives, in the light of tasks 1, 2, 3, 4 above, in full objective form (audience-behavior-conditions-degree).

4.2.6 Organize or taxonomize objectives.

4.2.7 Determine the extent to which the evaluator will be playing a change-agent role, in terms of the client and various audiences.

4.2.8 Identify the risks and benefits to the evaluator in task 7 above.

4.2.9 Prepare specifications indicating the extent of "internal" vs "third party" vs "fourth party (audit)" role of evaluator.

4.2.10 Clarify the extent to which the activities to be engaged in are "evaluation" or "research".

4.2.11 Clarify the extent to which "comparative" vs "noncomparative" approaches are to be involved.

4.2.12 Clarify the extent to which "adaptive" vs "formative" vs "summative" approaches are to be followed, and the constraints which various choices will impose.

4.2.13 Perform crude dry-run testing of crucial portions of the evaluation activity.

4.2.14 Review model approaches to evaluation.

4.2.15 Identify applicable model approaches.

4.2.16 Define an evaluation strategy or preliminary plan.

4.2.17 Identify and review key literature regarding the substantive content of the project to be evaluated.

0.3 General Function: Analysis of relevant onsite needs and context.

4.3 Evaluation Function: Analyze, negotiate and assess needs, objectives, values and priorities of project, site, audiences, constituency. Detail evaluation plan.

Tasks

4.3.1 With client, given information from Tasks under 4.1 and 4.2, establish final list of decision makers to be served.

4.3.2 Identify criteria and decision processes used by decision makers.

4.3.3 Perform needs assessment.

4.3.4 Identify sensitive areas.

4.3.5 Define the constraints under which the evaluation must operate in light of 1, 2, 3, 4 above, and in terms of information from Tasks under 4.1 and 4.2.

4.3.6 Identify and review "worked examples" of similar evaluation strategies to the one tentatively proposed (Task 4.2.16) applied to similar projects.

4.3.7 Review considerations involved in "experimental" vs "nonexperimental" designs in this context.

4.3.8 Define evaluation priorities with respect to impact, product, process.

4.3.9 Negotiate evaluation priorities with client.

4.3.10 Determine acceptable performance levels.

4.3.11 Specify detailed evaluation objectives, in measurable form.

4.3.12 Specify a plan for distribution of information.

4.3.13 Draft initial evaluation plan.

4.3.14 Review plan with client and audiences.

0.4 General Function: Identification of resources (foundational and instrumental products and information) to be used.

4.4 Evaluation Function: Identify and acquire, where available, data sources and instruments.

Tasks

4.4.1 Identify and list alternative sources of information for each aspect of the evaluation plan.

4.4.2 Specify costs and benefits of choices among sources, including constraints imposed by point of entry into project.

4.4.3 Modify models or procedures in the light of Tasks 1 and 2.

4.4.4 Make trial identification of types of instruments and treatments.

4.4.5 Crudely specify costs and benefits (time, money, manpower) of choices among types of instruments and treatments.

4.4.6 Make trial specification of sampling procedures.

4.4.7 Prepare gross evaluation timetable or PERT chart.

4.4.8 Check consistency of evaluation schedule with project schedule.

4.4.9 Review evaluation activities planned in terms of funding provided.

4.4.10 Negotiate adjustments as a result of Task 9.

4.4.11 Specify procedures for administration of the evaluation.

4.4.12 Identify formative or developmental needs for execution of the evaluation.

4.4.13 Determine which measurements will be nominal, ordinal, interval or ratio.

4.4.14 Review information to be gathered and appropriateness of various types of instruments and treatments.

4.4.15 Review reactive vs unobtrusive alternatives.

4.4.16 Review desired characteristics of instruments (relevance, reliability, fidelity, validity).

4.4.17 Review problems in use of instruments (administering, coding, scoring, interpreting).

4.4.18 Acquire those instruments which are available.

0.5 General Function: Adaptation of the foundational and instrumental products and information into the form to be employed.

4.5 Evaluation Function: Develop instrumentation, detailed plan and schedule for use.

Tasks

4.5.1 Construct those instruments which are not available.

4.5.2 Perform assessment of instrument reliability and validity.

4.5.3 Make revisions or changes in instruments.

4.5.4 Perform any major instrument development needed, within available funds.

4.5.5 Recycle trial or dry run of instruments until satisfactory.

4.5.6 Specify procedures for administration of instruments.

4.5.7 Specify procedures and criteria for scoring and coding data.

4.5.8 Specify and negotiate procedures for handling confidential information.

4.5.9 Make final specification of sampling procedures.

4.5.10 Draw samples.

4.5.11 Specify information processing techniques.

4.5.12 Select or prepare programs for data reduction and analysis.

4.5.13 Identify and negotiate responsibility for data collection, reduction and analysis.

4.5.14 Prepare detailed plan and schedule for data collection, reduction and analysis.

0.6 General Function: Application of the initial products.

4.6 Evaluation Function: Collect evaluation data.

Tasks

4.6.1 Locate the target sources of data.

4.6.2 Review and negotiate social and technical problems of form and procedure in data collection.

4.6.3 Perform data gathering activities; administer instruments.

4.6.4 Record raw data systematically in a complete and intelligible format.

0.7 General Function: Processing of results (analyzed data).

4.7 Evaluation Function: Reduce, analyze and process evaluation data.

Tasks

4.7.1 Transfer data to stored and protected form.

4.7.2 Summarize data in the categories prescribed by evaluation plan.

4.7.3 Prepare summary graphic data displays such as frequency distributions.

4.7.4 Review evaluation intents (describe, relate, compare).

4.7.5 Prepare crude parametric/nonparametric descriptive statistics of central tendency and variability.

4.7.6 Prepare graphic displays of relationships.

4.7.7 Convert data to form for processing.

4.7.8 Conduct data processing as planned.

4.7.9 Summarize results of data processing into the decision-related categories prescribed by the evaluation plan.

4.7.10 Identify appropriate tests of significance.

4.7.11 Perform tests of significance.

4.7.12 Assemble computational documentation.

0.8 General Function: Interpretation, recommendations, decision to recycle.

4.8 Evaluation Function: Develop interpretations and determine adequacy of results.

Tasks

4.8.1 Interpret the statistics and tests of the data in terms of decision situations.

4.8.2 Interpret the results in terms of the evaluation objectives.

4.8.3 Interpret the results in terms of the project objectives.

4.8.4 Develop further courses of action for the evaluation of the project.

4.8.5 Develop suggestions for further courses of action for the project itself.

4.8.6 Specify the extent to which the evaluation activities may have been reactive.

4.8.7 Draft recommendations as to the weights to be attached to the evaluation results, for decision making.

4.8.8 Note advisable modifications of strategy for future use.

4.8.9 Prepare initial draft of evaluation reports.

4.8.10 Discuss preliminary drafts with client and audiences.

0.9 General Function: Production of final products.

4.9 Evaluation Function: Prepare evaluation reports.

Tasks

4.9.1 Review evaluation context and attitudes of audiences towards evaluation.

4.9.2 Translate outcomes into terms meaningful to users.

4.9.3 Consult funding agency with respect to reporting format and priorities.

4.9.4 Assemble all supporting information and documentation.

4.9.5 Review classes of decisions to be made (intervention, planning, adoption, individual vs group).

4.9.6 Review standards or constraints of evaluation information.
(Usefulness: scientific nature, relevance, significance, scope, credibility, timeliness, efficiency, understandability
Ethical Considerations: candor, confidentiality, scientific caution, professional/client relationships, professional/funding source relationships and professional/profession relationships)

4.9.7 Review distribution media (personal, telephone, written, taped, computerized, multimedia).

4.9.8 Determine the number of different reports to be prepared, and their audiences.

4.9.9 Sort report materials into the sets required for each audience.

4.9.10 Prepare second drafts of evaluation reports.

4.9.11 Proofread and revise reports.

4.9.12 Produce formal reports in required quantities.

4.9.13 Prepare schedule for distribution.

0.10 General Function: Distribution

4.10 Evaluation Function: Distribute information to decision makers and audiences.

Tasks

4.10.1 Implement schedule for distribution.

4.10.2 Monitor implementation of schedule for distribution.

4.10.3 Make followup contacts with client and with all or sample segments of audiences.

4.10.4 Prepare any followup activities and/or documents which appear to be called for.

4.10.5 Review efficiency and effectiveness of distribution plan and note improvements needed.

4.10.6 Engage in specified procedures for assessment of impact of the evaluation report and evaluation activities.

4.10.7 Solicit written comments on the evaluation from the client.

0.11 General Function: Management

4.11 Evaluation Function: Evaluate a management strategy for completing an evaluation.

Tasks

4.11.A Evaluate a Management Strategy

4.11.A.1 Apply PERT/critical paths to project plan and to evaluation plan.

4.11.A.2 Apply cost benefit and cost effectiveness analysis to project plan and to evaluation plan.

4.11.A.3 Apply management by objectives to project plan and to evaluation plan.

4.11.A.4 Apply decision-function charting to project plan and to evaluation plan.

4.11.A.5 Apply "adaptive" or adjustive evaluation techniques to project plan and to evaluation plan.

4.11.A.6 Apply "formative" or developmental evaluation techniques to segments of the project plan and/or to evaluation plan.

4.11.B Completing an Evaluation

4.11.B.1 Engage in initial contacts and negotiations.

4.11.B.2 Obtain agreements in principle.

4.11.B.3 Perform initial planning from information gained through the completion of Tasks under 4.1, 4.2 and 4.3.

4.11.B.4 Negotiate contracts.

4.11.B.5 Obtain required qualified personnel.

4.11.B.6 Orient personnel.

4.11.B.7 Train personnel in special procedures.

4.11.B.8 Assign work.

4.11.B.9 Monitor work.

4.11.B.10 Maintain job satisfaction.

4.11.B.11 Determine priorities for tasks.

4.11.B.12 Define and institute quality control criteria.

4.11.B.13 Exercise and delegate fiscal control consistent with agreed priorities.

4.11.B.14 Establish deadlines.

4.11.B.15 Establish work schedules.

4.11.B.16 Monitor and ensure achievement of timetables and criteria.

4.11.B.17 Continually improve procedures.

4.11.B.18 Maintain equity in workload and working conditions.

4.11.B.19 Report progress.

4.11.B.20 Interact with inhouse colleagues.

4.11.B.21 Interact with external colleagues.

4.11.B.22 Utilize, monitor and improve support services.

4.11.B.23 Maintain supportive relationships with project being evaluated, and its audiences, consistent with external and professional constraints and ethics.

4.11.B.24 Analyze structure of project and evaluation activities.

4.11.B.25 Chart decision-making functions in project and evaluation activities.

4.11.B.26 Interact with advisory groups.

4.11.B.27 Coordinate field operations.

4.11.B.28 Negotiate field/center priorities.

4.11.B.29 Schedule and prepare meetings; use them effectively.

4.11.B.30 Use memoranda effectively.

4.11.B.31 Prepare and use forms effectively.

4.11.B.32 Devise a systematic generic scheme for management of contract evaluation activities.

4.11.B.33 Train and delegate client personnel to perform specified evaluation tasks.

The Derivation of the Tasks

Many sources were used in compiling and categorizing the tasks listed for development and evaluation. Once the initial drafts of tasks had been prepared, they were tried with, and critiqued by, members of the working council, other staff members of some of the consortium institutions and outside consultants. Components of the critiquing included descriptions of current jobs; forecasts (five to ten years) for projected jobs; predictions of technical trends; and considerations of social and educational needs, values and priorities.

For the initial derivation of the evaluation tasks, the basic structure, outline and listed objectives of the Evaluation Training Materials from the Evaluation Program at Teaching Research were employed. These included the manual, A Strategy for Evaluation Design, edited by Casper Paulson and organized by Frank Nelson. The Evaluation Program's publication, Models for Evaluation: An Introduction was also used. The extensive unpublished lists of behavioral objectives for media training projects assembled by Dale Hamreus of Teaching Research were used. Preliminary listings of product operations in evaluation were then prepared for this project in consultation with staff members of Teaching Research.

The initial derivation of the development tasks employed preliminary drafts of product operations in development prepared in consultation with staff members of Teaching Research; comparison of those drafts with the lists of evaluation tasks; and conferences within the Core Design Group.

The initial lists were then compared with lists presented or derived from the following sources: Baxter (1970); Clark and Hopkins (1969); Crutchfield and Covington (1969); Griessman (1969); Guba and Stufflebeam (1970); Hayes (1959); Hemphill (1967); Horvat (1970); Michael (1970); Nelson (1970); Owens (1968); Paulson (1969); Paulson (1970); Stufflebeam (1970); Twelker (1969); Weislogel, Johns and Rigby (1950); and unpublished drafts of technical papers of the Task Force on Training Research and Research-Related Personnel of the American Educational Research Association (1970).

The purpose of these comparisons was to be as certain as was feasible that the lists were exhaustive; that the tasks were small enough to be substantially independent of each other, and produce or potentially produce separable and identifiable products; that the tasks were large enough so as to avoid the separate listing of highly correlated subtasks; and that the range of tasks was sufficiently robust to accommodate, as subsets, the particular sets of tasks emphasized by various authors in reference to various problems, products and contexts.

The revised preliminary drafts of the lists of development and evaluation tasks were critiqued by members of the working council, members of their staffs and consultants. Some of the critiques were secured through interviews, and some were secured through written instruments. These processes are continuing, for the evaluation and the development lists, and will be set up in the future for the diffusion and the research lists which may be needed for this program within a few years.

Use of the Competency Profiles

The competency profiles will become the basic instrument which will guide each trainee through the training program. Initially, the competency profile will be primarily a counseling device to be used by the trainee and his advisor. A completed competency profile will contain two classes of information, each a profile in itself. The first is a representation of one standard profile of competency as judged against skills needed to hold existing jobs and the preferences of the trainee to acquire certain skills. The second is a representation of an individual profile showing the actual level of competency of each trainee in relation to the standard profile.

Standard Profile

The term standard profile was selected in order to convey the idea that it is the profile toward which the trainee is directing his efforts. If the standard profile format is used to represent the goals of the training course that each individual trainee chooses in consultation with his supervisor, it is referred to as his negotiated profile. The standard profile is also used to represent the level of proficiency of individuals holding positions in a number of educational organizations. These standards will be empirically derived for jobs available in the service area of the program. If the standard profile is derived from data on skills needed to hold certain jobs, the profile may be called the job entrance profile.

On the sample profile forms (see Figure A), the standard profile is represented by the fact that certain cells in the columns are shaded. At present, the level of competence illustrated is whether or not the trainee can (1) perform the task with a moderate amount of supervision or (2) perform the task with minimal or no supervision. In the sample profile, the shaded areas indicate that to hold a particular job (or reach a negotiated level of proficiency), the trainee should be able to perform this task with minimal supervision. The unshaded areas indicate the tasks that may be performed providing the trainee has a supervisor to oversee his activities.

As a first step in developing job entrance profiles, the program staff will conduct a series of interviews with potential employers of trainees completing the program during its first year. This service area will comprise school districts, research and development agencies, and universities in the Pacific Northwest. It is possible that in subsequent years a broader area may be surveyed. A representative sample of employers will be questioned regarding the skills needed to hold development or evaluation jobs. These skills will be rated on the degree of independence with which they must be performed.

It will be noted there is variation in the density of the shaded cells in the illustrations. The reasons for representing the shaded areas in this manner is to allow for variance in job requirements across institutions. That is, the darker the representation of a particular cell, the greater the consensus of employers that the skill should be performed with minimal supervision.

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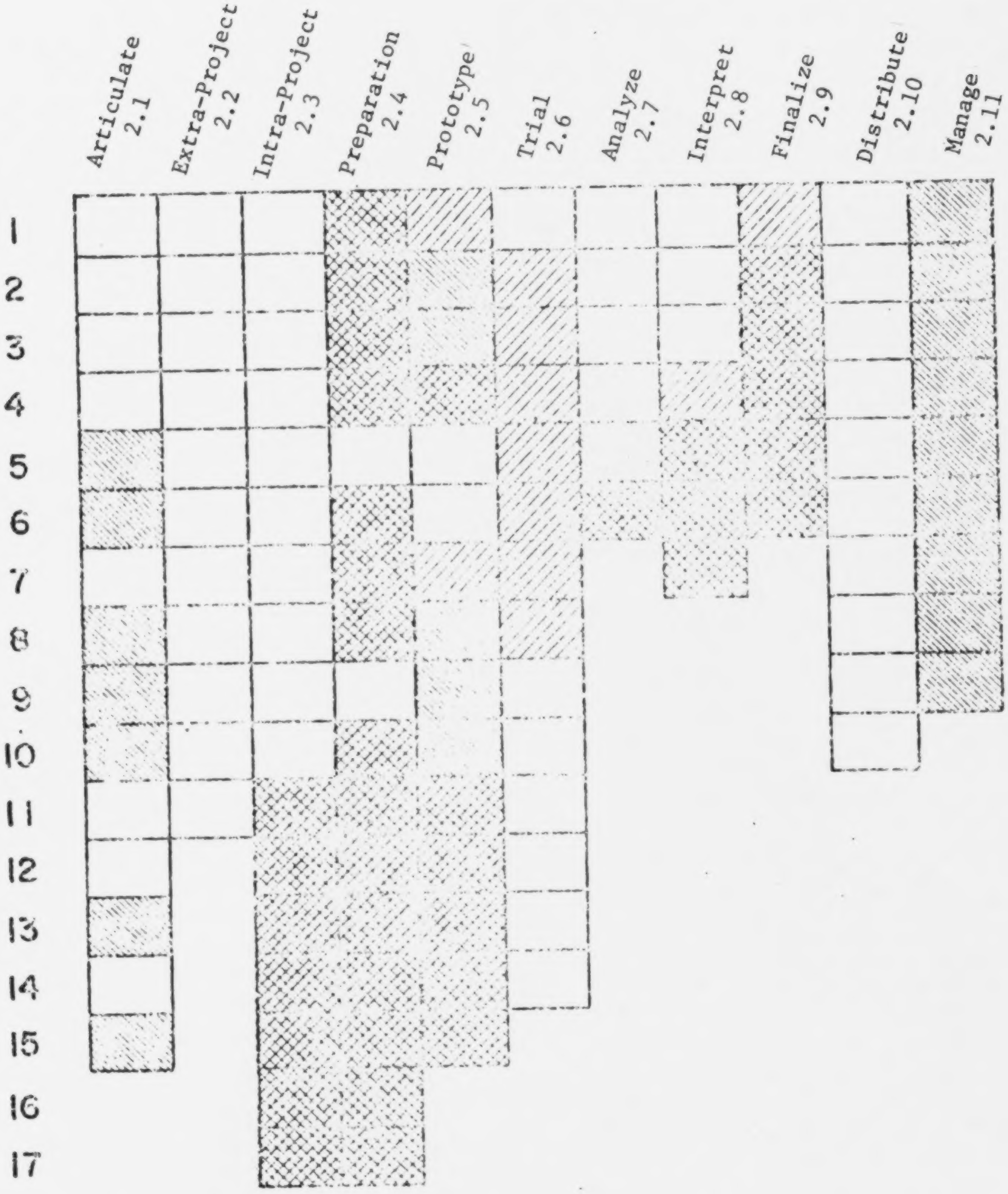
FIGURE A
A PROFILE FORM FOR THE DEVELOPMENT
TRAINING TASKS ILLUSTRATING
THE STANDARD PROFILE



☐ Task performed with periodic supervision

▨ Task that up to 30 percent of employers require personnel to perform independently

▧ 30 percent to 70 percent of employers require the task to be performed independently

▦ 70 percent to 100 percent of employers require the task to be performed independently

Individual Profile

The term individual profile was selected to convey the idea that the skills possessed by each individual will vary from the standard by some amount. At the present state of development, the individual profile will show whether the individual is below, at or above the standard.

An individual profile is illustrated in Figure B. A code represents where each individual stands in relation to the standard. If he is below the standard, a minus sign is entered in the column representing the skill. If he is performing at the standard, a plus is entered. If he exceeds the standard, the plus sign is circled.

An illustration

The following is an illustration of the way the competency profile will be used in order to guide a trainee through the training program. Consider a person who has completed initial screening and has been selected for the intake interview. His goal is to become an instructional materials developer and he states his preference for this type of training. At this point, a complete competency profile will be compiled. The staff interviewer will have information from the trainee's application form, transcripts of earlier training, references and the rough profile of experience and aspiration compiled during the initial conference.

The competency profile interview will be an extensive and detailed process. The candidate's competence at each task will need to be determined. Each task will have a detailed description and the conditions delineated under which it will be performed. In addition, any products that may be associated with it will also be described. For each task, an appraisal will be made describing the level of supervision required for the trainee to perform the task at an acceptable level of quality. For the most part, this information will be gained from the trainee self-reports during the interview. The trainee will be asked to describe similar tasks he may have performed. Specified criteria will be used when deciding the trainee's present level of competence based on his description.

An additional source of information on a trainee's competence will be gained later during the trial project. At this time actual task assignments will be made and a sample of products created by the trainee will be rated on the criteria developed. An effort will be made to rate a trainee on tasks on which intake interview information is insufficient. For example, if a trainee has no experience on a task, but has some related experience at similar tasks, it would be of interest to determine whether he is able to complete an assignment to that task with little or no special training. Ratings made at the time of the trial project will serve to refine the judgments made during the interview, and correct for either inflated or overly modest reports of ability given by the trainee during the original competency profile interview.

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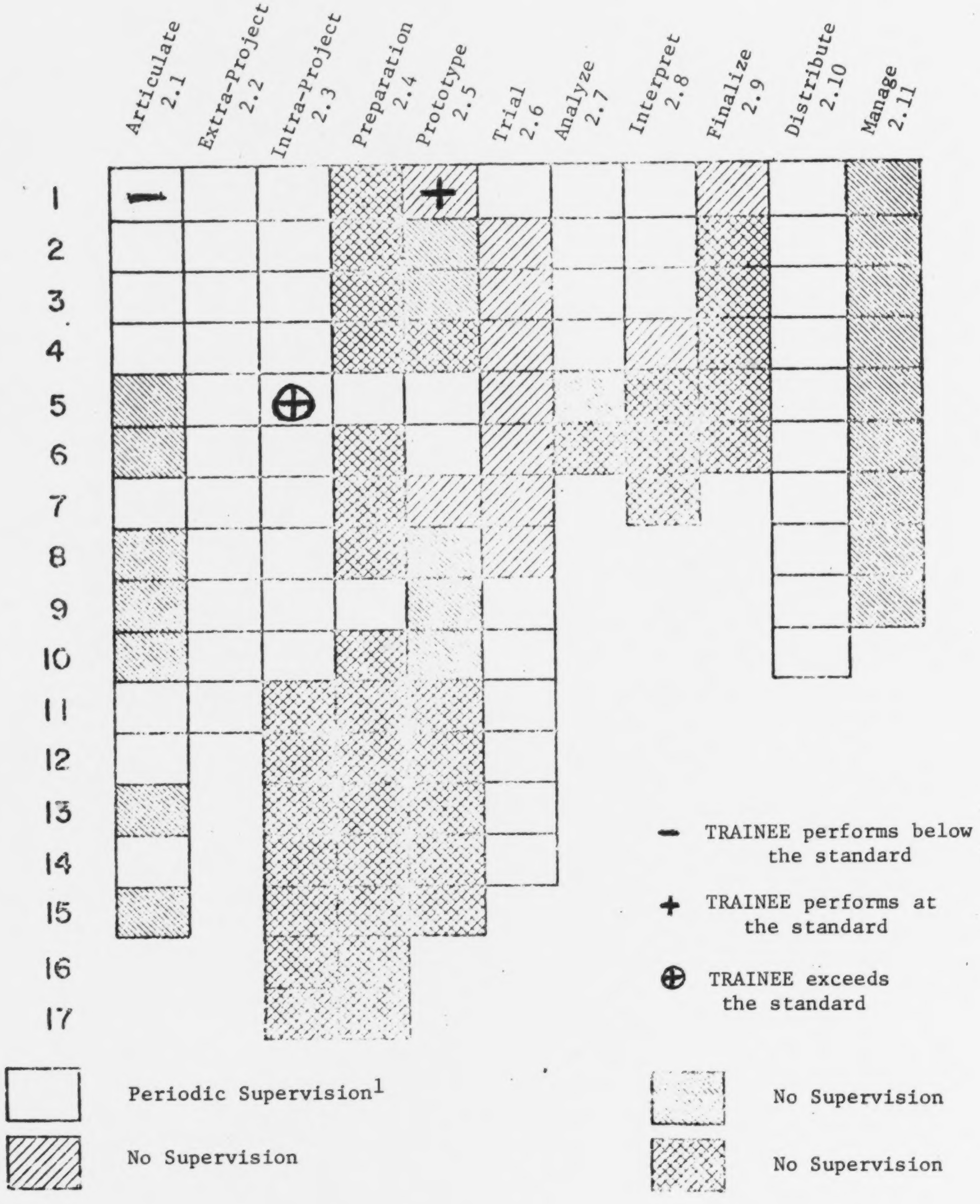
FIGURE B
A COMPETENCY PROFILE
FOR A TRAINEE IN THE DEVELOPMENT PROGRAM
ILLUSTRATING BOTH THE STANDARD AND EXAMPLES
OF INDIVIDUAL PROFILE ENTRIES



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[1] See Figure A for complete explanation

Selection of Level of Competence

As an example, the first task in the list of tasks to be performed by a developer of instructional materials is, "State a problem and articulate that which involves development of a product." (Task 2.1.1.) It will be noted this is the first cell of the first column on the profile sheet. (See Figure B) Upon entering the intake interview, the trainee's counselor indicates that in order to hold a development position in a research and development agency, an employee would probably have to be able to perform this kind of task under periodic supervision. Since the trainee is interested in holding such a job, he indicates that he wants sufficient training experience to be able to perform the job with moderate supervision. The appropriate cell is left unshaded to indicate the trainee aspires to perform this task with some supervision. Thus the standard profile on the trainee's negotiated profile for this skill has been created.

The following step is to determine the present level of competence of the trainee at this task. In this example, it is discovered that the trainee has never done anything similar to the task and would require a large amount of supervision in order to perform it. The counselor, therefore, places a minus sign in the appropriate cell (cell one of the first column). The minus sign indicates the trainee does not presently have the level of skill to perform at the standard (moderate supervision) level. A glance at this cell now indicates the trainee's aspiration and where he stands in relation to his goal. During the course of the training program, the experiences needed to permit the trainee to learn to perform the task with a moderate amount of supervision will be provided. That is, a project assignment will be found that affords this experience. If the trainee was highly competent at this task as determined by the intake interview, and could already perform the task with minimal supervision, then a circled plus would have been entered on the profile. In this case, it is unlikely that any special project experience at the task would be arranged. For illustrative purposes (see Figure B), the trainee has been rated as exceeding the requirements of task 2.3.5 (specify types of learning) and meeting the requirements of task 2.5.1 (specify performance measures).

Selection of Instructional Experiences During a Project

The completed competency profile will be used as the basic guide for task assignments during the course of training. At any given time, each trainee will have an up-to-date competency profile which will contain the two classes of information described earlier. These are (1) the level of competency for each task to which the trainee aspires during his training (i.e., the standard or negotiated profile), and (2) the present level of competence of the trainee presented in terms of deviation from the standard profile (i.e., the individual profile). As the trainee proceeds through the project, his competency profile will be brought up-to-date on a continuous basis by his supervisor.

As an example, consider a trainee who has negotiated to be able to perform a particular task under conditions of moderate supervision. For a developer of instructional materials, such a task might be to acquire skill at specifying needed modifications of the physical environment in order to conduct a trial of prototype materials (Task 2.6.9). The first entry on the profile takes place on entering the program. At this point, the trainee negotiated for an exit profile that indicated moderate supervision. The appropriate cell on the profile sheet was left unshaded to indicate the exit competency. The next step was to determine the entering competence. During the intake interview it was determined that the trainee had had no experience at tasks related to specifying environmental modifications. Thus, a minus sign was entered in the unshaded cell. Later, during the course of the training, the trainee's supervisor will arrange for the trainee to be assigned to a project which will offer experience at specifying modifications. When the trainee has shown the ability to perform the task of specifying environmental modifications, his supervisor will place a cross bar on the minus sign, thus changing the entry to a plus sign.

When first assigned to the task on a project, the trainee's performance will be monitored directly by the supervisor to determine whether or not the initial classifications are accurate. That is, if the trainee is able to demonstrate proficiency at the task, then the competence profile will be changed by adding a plus or a circled plus, depending on the level of proficiency. More likely, however, the trainee will be required to perform the task one or more times before he is judged as competent.

The entire structure of the training program is to provide the opportunity for the trainee to gain competence through assignment to projects offering the needed experiences. However, the program also will concern itself with producing supplementary training material. Such material will include lists of articles, books and texts that deal with topics related to each task. In addition, instructional packages will be developed that deal with topics directly relevant to the training program. Since the function and task delineation developed for this project is unique and lists a large number of tasks at a fine grain level, it is likely the trainee will require many supplementary materials developed specifically for the project. It is anticipated that programmed texts, slide-tape presentations, workbook and simulation exercises will be developed.

Additional training will be provided in the form of seminars conducted at the project site. Consultants and project staff will be called on to lead the seminars. The competence profile offers a unique opportunity to make decisions concerning the selection of topics relevant to the needs of trainees at the site. A composite profile of several trainees would indicate areas in which common deficiencies exist. For example, the training site director may examine all profiles of trainees at his site to determine areas where a relatively large proportion are performing below their negotiated level. When these areas are identified, the site director can then set up seminars to cover these topics. While such a procedure could be conducted informally, it would also be possible to program the process for a computer when the training program begins using one to keep records and store relevant information on the trainees.

A point at which the competence profile has particular importance in decision making is when a trainee is having difficulties in the program. For example, it may be discovered that before a trainee can perform a task under even constant supervision, some background skills are necessary. Such a task for an evaluation generalist may be the identification of appropriate tests of statistical significance (Task 4.7.10). Without at least a familiarity with statistical manipulations and some basic understanding of probability theory, performance of this task may not be possible. The trainee may lack information to make the decisions and will have to rely heavily on the supervisor to perform the task. Using the numbering system of the profile as a guide, supplementary experiences may be located that will provide the background information to help him participate more directly in the task.

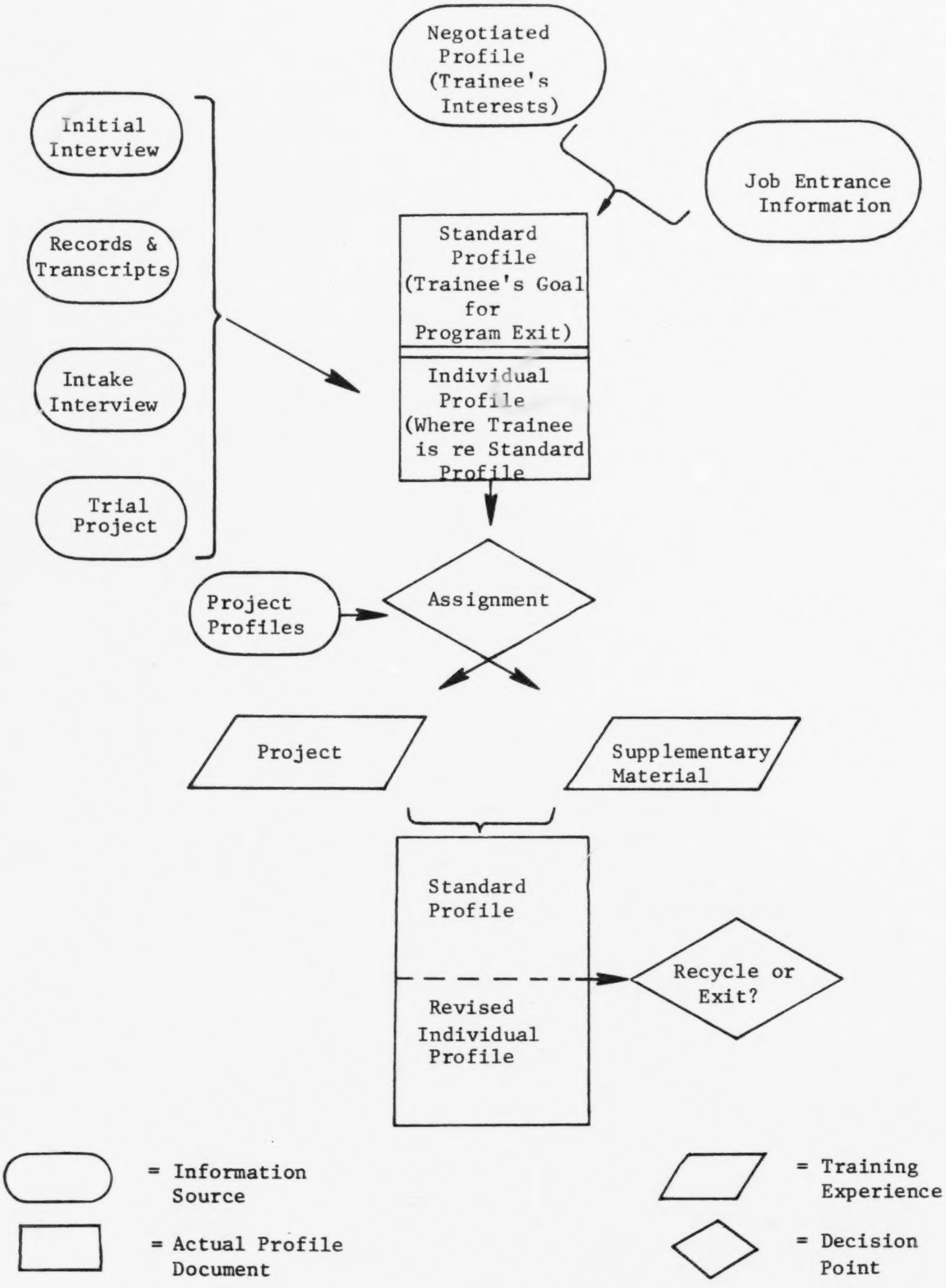
Instructional packages are only one of the supplementary experiences that will be available to the trainee. The training program itself is also a project. As a project, the program will be developing materials for its own use. In addition, it will be evaluating both the materials it is developing and itself as a training project. In the case that a suitable project experience cannot be found at any of the projects at the training sites, the training program itself will be used as a training project. In this case, the trainees may actually be assigned to the development and evaluation of instructional packages to be used in the program itself. Consider as an example, a trainee whose goal is to be a materials developer. He may need a particular skill for which no project assignment and no suitable instructional package is available. Such a task might be stating the organizational structure of a project's staff (Task 2.11.1). In a case such as this, the training program may decide to begin work on an instructional package dealing with organizational structures, particularly if project assignments offering this task are difficult to find. In this example the trainee may be assigned to working on the development of this instructional package. During this assignment, the trainee will gain additional competence in working at development tasks and, at the same time, become familiar with concepts related to organizational structures.

Project Assignments and Decision Procedures

Figure C illustrates the information sources, information flow and decision points as a trainee proceeds through the training program. As the illustration shows, the completed standard profile is a composite of information from a survey of tasks required to hold available positions (Job Entrance Information) and the result of a negotiation between the trainee's interests and the ability of the project to fulfill these interests (Negotiated Profile). The individual profile is illustrated as a composite of information gained during intake procedures and indormation acquired during assignment to the project. The bulk of the project information will be gathered during the trial project but more will be collected during actual project assignments. The standard and the individual profiles together comprise the competency profile.

FIGURE C

AN ILLUSTRATION OF INFORMATION FLOW IN RELATION TO TRAINING ASSIGNMENTS


Negotiated Profile (Trainee's Interests)
Job Entrance Information
Initial Interview
Records & Transcripts
Intake Interview
Trial Project
Standard Profile (Trainee's Goal for Program Exit)
Individual Profile (Where Trainee is re Standard Profile
Project Profiles
Assignment
Project
Supplementary Material
Standard Profile
Revised Individual Profile
Recycle or Exit?
= Information Source
= Actual Profile Document
= Training Experience
= Decision Point

Assignment to training experiences is illustrated as a decision point. To decide on a project assignment, information from the competency profile (trainee's needs) and from the project profile (what experiences are available in the field) is used.

When the trainee proceeds through his assignment, his supervisor continually examines the profile and keeps it up to date. This process may be thought of as bringing the individual profile into a consonant relationship with the standard profile. The gradual formation of this consonant relationship is represented by the broken line in Figure C. This line shows the differences between the two profiles are reduced during training. The degree of correspondence between the profiles is used when making the decisions about when a trainee has completed the program.

When the trainee has reached a level of correspondence that satisifies the requirements of the training program, he then can be certified as qualified to hold a position as a developer.

THE INSTRUCTIONAL MECHANISMS

The major instructional mechanism for the training program is the training project. The emphasis of the design is on the creation of a project which is a natural learning environment. All staff members in a training project would be expected to grow and to learn. A trainee would simply be a staff-member-in-training who, in the course of his project experience, would become more skilled in the jobs he does.

To facilitate the functioning of the training project as an instructional mechanism in its own right, the regular staff members on the project and its director will be given special training in running a learning project. In addition, one staff member per three trainees will be released half-time to be the immediate supervisor of those trainees in that project experience. This supervision is an additional instructional mechanism and is designed to facilitate the trainee's learning while in the project context.

Furthermore, a training site will be so designed that seminars will be run regularly for up to fifteen trainees at any particular site. These seminars will have two major foci. The first seminar will deal with the problems involved in learning from an operating project. The second seminar each week will concentrate on:

1. Treating the substantive content necessary to solve the problems on which the trainees are working

2. Generalizing beyond those particular problems and experiences to see them as an instance of the general class of problems

These two seminars will meet once a week and will be directed by the training site coordinator. They will be taught by the supervisory staff and the training coordinator with the help of outside consultants and specialists.

Another instructional mechanism is the self-instructional materials which a trainee may study independently, study under direction or simply use in the performance of his duties. Every task and every functional area of development and evaluation will have at least some instructional materials related to that task, and each site will be equipped with a complete library of materials for learning how to do particular tasks.

Two kinds of specialists will be available from outside a training site to help in any particular training task: training specialists and training consultants. Training specialists will be individuals who are specialists in an area which the training staff knows will come up regularly in the course of the training program. These individuals will be paid a retainer (perhaps .1 FTE) on the understanding that they will be available at a week's notice to either teach a seminar course or work with individual trainees on some particular problem. Training consultants, on the other hand, are merely consultants who will be paid a regular consultant fee to appear and either teach a seminar class or work with individual trainees. Each training site coordinator will have available a certain amount of money to hire consultants.

It is anticipated that in some instances the most efficient and effective way for a trainee to receive a particular kind of training will be to enroll in a course somewhere other than at the training site. Every attempt will be made to keep this at an absolute minimum because it is inappropriate to the training model. It can be anticipated, however, that on rare occasions one or another trainee might be best served by some university or community college course. In such cases the trainee will be freed sufficiently to make use of this mode of instruction.

INTEGRATIVE MECHANISMS

Consistent with the needs of the projects, every attempt will be made to involve evaluation and development trainees in the same project. Certainly, no training site will have all development or all evaluation trainees. Since the trainees are integrated at the site, the sitewide seminars will provide the major integrative mechanism for the training program.

A training seminar will be conducted by the training site coordinator for all of the training staff and the project directors involved in the training projects. Therefore, it can be expected this seminar or instructional program will indirectly provide an integrative mechanism as the staff members discuss various problems they face in dealing with the trainees, and various techniques they have used in dealing with them.

Trainees will regularly shift from one training site to another and be involved in different projects and different experiences. It can be anticipated that this will serve as a fundamental integrative mechanism, as trainees will bring their experiences with them when they go to another site and can be expected to share those experiences, approaches and techniques.

In many ways, the integration of the training programs will be facilitated by the fact that the function delineations of evaluation and development show a great deal of overlap. Because of this, the instructional materials in the library will overlap both evaluation and development, and trainees can be expected to share their learning from these training packages.

Finally, it can be anticipated that at irregular intervals, for a day or two, these central administrative institutions will have symposia or seminars or some other kind of total training program experience in which all trainees and all training staff will be brought to a central location for some common purpose. This is not a major integrative mechanism.

MANAGEMENT CONSIDERATIONS

The remaining subsections of "The Operation of the Training Program" discuss aspects of program management. Although areas of this topic are treated in part in other sections of this report, the emphasis here will be upon the organizational structure, the identification of roles, and an explanation of functions. The detailed explanation of management mechanisms designed to activate procedures and to identify and facilitate decision-making points will be presented in the December 18 final report of the project.

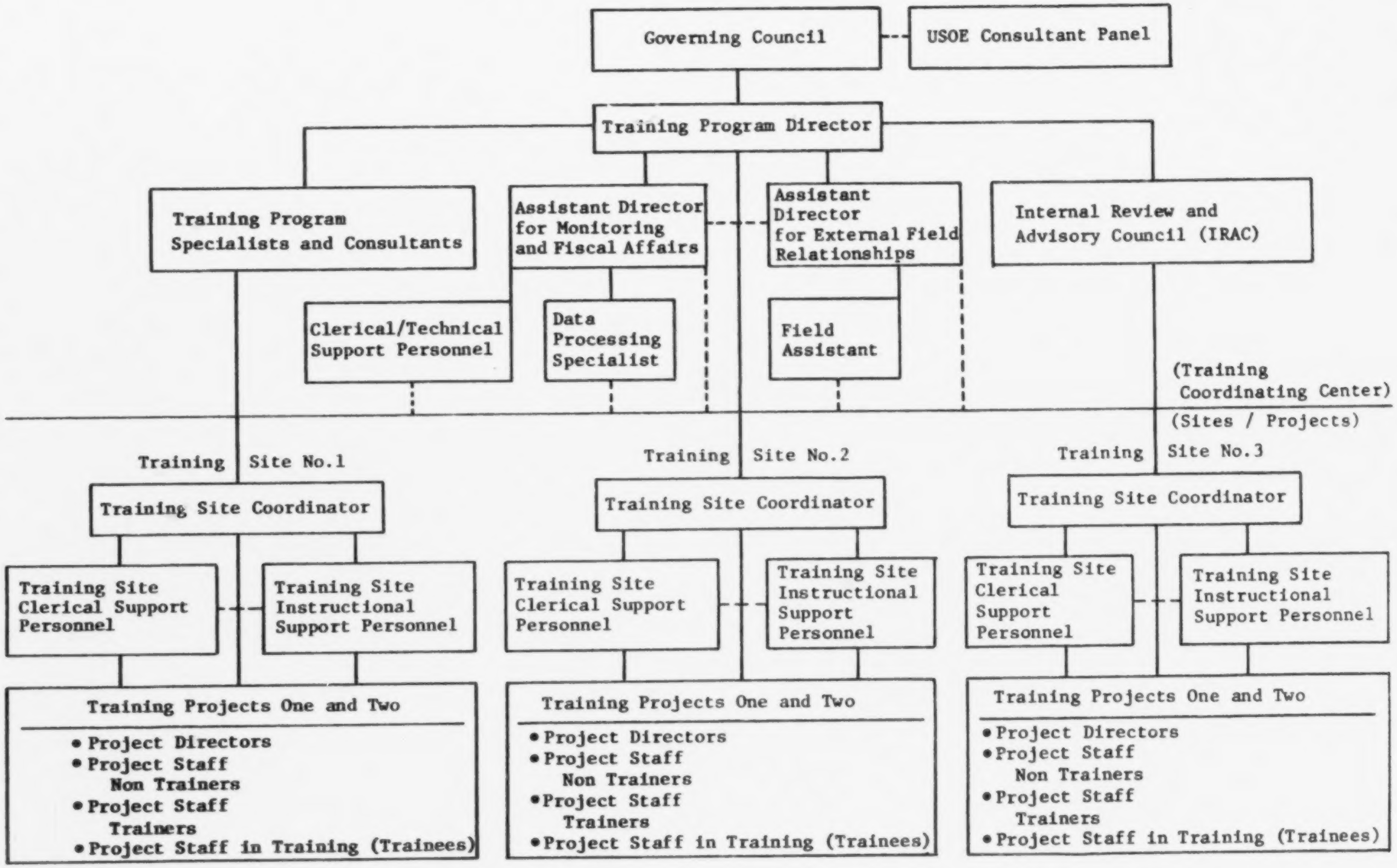
On page 92 the reader will find the proposed organizational chart for the total operation. Reference to subsequent charts (pages 93 and 94) and to Appendix A will assist in a more complete understanding of roles and relationships within the total operation.

Functions, their activities (development, evaluation and operation) and the proposed part each role incumbent will play in relationship to functions are displayed in graphic form on pages 93 and 94. Further details follow these displays.

CHART 2 ORGANIZATIONAL STRUCTURE

PACIFIC NORTHWEST TRAINING CENTER ORGANIZATIONAL CHART

Operating Year One


Governing Council
USOE Consultant Panel
Training Program Director
Training Program Specialists and Consultants
Assistant Director for Monitoring and Fiscal Affairs
Assistant Director for External Field Relationships
Internal Review and Advisory Council (IRAC)
Clerical/Technical Support Personnel
Data Processing Specialist
Field Assistant
(Training Coordinating Center)
(Sites / Projects)
Training Site No.1
Training Site No.2
Training Site No.3
Training Site Coordinator
Training Site Clerical Support Personnel
Training Site Instructional Support Personnel
Training Projects One and Two
• Project Directors
• Project Staff Non Trainers
• Project Staff Trainers
• Project Staff in Training (Trainees)

NOTE: For complete role descriptions and number of persons allocated to each role, please refer to Appendix A, "Complete Role Descriptions."

TRAINING COORDINATING CENTER FUNCTIONS

Year One

Roles	Consortium Procedures			Site Selection/ Termination Procedures			Training Project Selection/ Termination Procedures			Training Materials for Staff & Trainees			Program Procedures			Staff Selection/ Termination Procedures			Staff Training Procedures			Trainee Monitoring & Term. Procedures		
	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Ope
Program Director	R E	E	R E	R E	R E	E	R E	R	R	R E	R		R E	E	R E	E	E	R E	R E	R E	S			
Assistant Director For Monitoring and Fiscal Affairs	P	P			P		P	E			E		P	S	S	S	S	S		S		R	E	R
Data Processing Specialist		S			S		S				S			S	S		S			S		S	S	S
Assistant Director For External Field Relationships				S	S	S							P		S								P	P
Field Assistant				P	P	S							P		S								P	P
Clerical/Technical	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Governing Council	P	R	P	P	P	R							P	R	P	R	R	S		P		P	R	
USOE Consultant Panel		P		P	P	P				P			P									P	P	
Internal Review and Advisory Committee (IRAC)	P			P		P	P	P	P	P	P	P	P	P		P	P		P	P	S	P	P	
Training Specialists										S		S			P S					P	S			
Training Consultants										S		S			P S					P	S			
Training Site Coordinators Only (Not as part of IRAC)							S	S	E	S		R E			E	S	P	S	E	S	R E	E	P	E

Development of Procedures
Evaluation of Those Procedures
Operation of the Procedures to Perform the Function

CODE: Responsible for = R
Executes = E

Only Participates
(Does not help
execute or carry
responsibility f

One

ing dures		Trainee Monitoring & Term. Procedures			Trainee-ships Scheduling			Matching Trainees To Known Job Openings			Fiscal Control			Clerical/ Technical Services			Trainee Selection Procedures			Trainee Induction Procedures			Job Development Procedures			Credential-ing Procedures			P.R. & Dissemina-tion Procedures		
val	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper
R E	S					R																		R	S			S	P		S
S		R	E	R	R	E	R	R	R E	R	R E	E	R E	R E	R E	R										P	P				
S		S	S	S	E		E	E		E	P	S	S		S			S			S			S							
[illegible]			P	P					P		P	P	S	P	P		R E	E	R E	R E	R E	R	R E	E	R	E	E	R E	R E	E	R E
			P	P					P								S	S	S		S		S	S	E	S	S		S	S	S
S	S	S	S	S	S	S	S	S	S	S	S	S	S	P	P	E	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
P		P	R								S	R					S	R	S				S	P	S	R	R	S	P	R	S
		P	P								P	P					P	P					P	P	P				P	P	S
P	S	P	P		P	S			S						P			P		P	P	S		P							
P	S													P	P																
P	S													P	P																
S	R E	E	P	E		P			P				S	P	P		P	P		S	S	E			P			S			P

Only Participates In = P
(Does not help
execute or carry
responsibility for)

Only Supports Execution = S
(No responsibility, no
participation)
May Recommend or Suggest = ☐

TABLE 7 TRAINING SITE FUNCTIONS/ROLES

TRAINING SITE FUNCTIONS

Year One

Roles	Trainee Monitoring			Trainee Instructional Materials (Non Seminar)			Trainee Content Seminar			Trainee Field Problems Seminar			Trainee Supervision/Tutorial			Staff Training			Clerical/Technical Support			Other Trainee Instructional Experiences		
	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper
Training Site Coordinator	R	R			R		R	R E	R E	R	R E	R E		R		R	R E	R E	R E	R E			R	
Training Site Instructional Support Personnel				R E	E	R E	E	S	S	E	S	S	E	S	S	E	S	S			R	R E	E	R E
Training Site Clerical/ Technical Support Personnel	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		P	E	S	S	S
Training Project Director	P		P		P	P	P	P	P S	P	P	P S	P	P	S	P	P	P	P	P			P	
Training Project Staff/Trainers	E	E	R E	P	P	P	P	P	P S	P	P	P S	R	E	R E	P	P	P	P	P		P	P	
Training Project Staff (Non Trainers)						P			P	P	P	P								P				
Training Project Trainees (Staff Members in Training)	P	P	P	P	P	E P	P	P	P	P	P	P	P	P	P	P	P			P		P	P	P

CODE:
Responsible For = R
Executes = E
Only Participates In = P
(Does not help execute or carry responsibility for)

Only Supports Execution = S
(No responsibility, no participation)
May Recommend or Suggest = ☐

"Participation in Development" means providing inputs
"Participation in Operation" means attending or having access to
"Supporting" means doing some of the work

THE FUNCTIONS OF THE TRAINING COORDINATING CENTER

In the preceding two tables, roles and functions for the training coordinating center and the site/project are listed.

The identity of roles would appear self-explanatory (for further detail, see Appendix A) but the reader would perhaps benefit by a brief explanation of all functions listed on the two charts. Functions are discussed below:

Consortium Procedures

The operation of the consortium procedures must be developed and evaluated during the three years of federal funding. Following this period, either the consortium will be maintained or the universities will have developed sufficiently simple procedures for cooperation among themselves and with the training sites that the consortium appears no longer necessary as a formal organization.

Site Selection/Termination Procedures

Three initial training sites will be selected and carefully monitored for both their training effectiveness and their efficiency. It can be anticipated the number of sites will increase during the three years of federal funding, possibly to seven or eight. Procedures for site selection will be developed and evaluated over time. In certain circumstances it is possible that one or more sites must be terminated from their involvement in the training program. Procedures for arriving at such a decision also must be accomplished at the training coordinating center.

Training Project Selection/Termination Procedures

Within each training site a number of potential projects will be available as training projects. Procedures for project selection must be developed and evaluated. The effectiveness of these projects as training contexts must be monitored. The selection of new projects when either one training project terminates or another appears potentially effective as a training context must be accomplished. The training coordinating center must oversee training project selection, monitoring, replacement and possible termination.

Training Materials for Staff and Trainees

During the initial years of the training program, a great many materials must be developed for trainees and staff. Each of these materials, plus all existing materials which can be located, will be carefully evaluated for their effectiveness in training sites and in training project contexts. By the end of federal funding, a completely developed set of training packages will be available to each training site. The training coordinating center will supervise this development, evaluation and operating task.

Program Procedures

Since no large scale clinical training program in a field setting has been mounted with the particular theoretical base of the one being proposed, a number of critical operating decisions must be made without benefit of any empirical data. Such things as the relationships between the training site coordinator and the training project directors or the relationships between trainees and training project staff members are unclear. By necessity, they must remain so until various ways of establishing these relationships and making decisions are actually developed in the field setting and evaluated for their effectiveness. The training program will carefully establish alternate feasible procedures at different sites and evaluate relative effectiveness on the basis of empirical data. The training coordinating center will develop alternate program operation procedures, evaluate them in various contexts and select the most effective ones for general implementation at the end of the three years of federal funding.

Staff Selection/Termination Procedures

The training coordinating center will develop an effective procedure for staff recruitment, selection and termination. They will evaluate procedures on the basis of effectiveness of individual staff members in their training roles at various training sites. By the end of federal funding, effective operating procedures for staff selection, staff evaluation and staff promotion or career advancement will be accomplished.

Staff Training Procedures

Recruited staff members at all operational levels, regardless of their sophistication, will need special training in how to effectively instruct trainees in an operating project context. The training coordinating center will develop materials and programs to train staff, evaluate the effectiveness of these materials and programs and develop, by the end of the federal funding period, an effective finalized mechanism for giving staff members the additional training they need to perform effectively in their new field-centered roles.

Trainee Monitoring and Termination Procedures

Trainees' progress in accomplishing their negotiated profile must be carefully monitored. Monitored data will be primarily generated from the field site but the training coordinating center must maintain an up-to-date file on the status of each trainee and develop procedures for identifying and responding to problems which trainees may experience. The development, evaluation and operation of trainee monitoring and termination procedures are viewed as crucial to the success of the program.

Traineeship Scheduling

In order to allow trainees to accomplish all of their negotiated training objectives, it may be necessary to shift a trainee from one project to another within the same site or even to a different site. The overall scheduling of trainees, the overseeing of shifts from one site or project to another and the development of schedules which permit every trainee to accomplish objectives within a reasonable period of time must be performed by the training coordinating center.

Matching Trainees to Known Job Openings

It is essential that a very close relationship be maintained continually between job positions in the field, the qualifications for these job positions and the terminal profiles toward which trainees are working. Effective mechanisms will be developed for feeding information about job openings into the negotiation sessions of trainees and for evaluating these procedures and making them more effective over the three-year period of federal funding. By the end of that time, the training program must have a regular, routine mechanism for relating the training program to the needs of the field as well as to the needs of the trainees. The training coordinating center must perform this function.

Fiscal Control

The constraints under which the training programs must operate after the federal funding is phased out are severe. There must be a very careful and highly developed cost control, cost accounting and cost effectiveness procedure to continually insist the training program operate as soon as possible within realistic constraints which will be present after federal funding ends. The development of these fiscal control procedures and the effective use of them in monitoring the training program is critical for the long-term maintenance of the training model and training program. They must be accomplished by the training coordinating center.

Clerical/Technical Services

A large number of the training coordinating center functions are merely monitoring procedures but a number involve actual work which must be accomplished at the training coordinating center. For accomplishing this work there will be a group of highly skilled clerical and technical support personnel at the training center to do the monitoring and to maintain many of the operating procedures as they develop. The determination of the exact nature of these clerical and technical support roles, the evaluation of these role descriptions and the development of an operating central staff are critical tasks of the training coordinating center during the period of federal funding.

Trainee Selection Procedures

The development and evaluation of procedures for operating trainee selection mechanisms must be accomplished by the training coordinating center in a form easily utilized by existing sites at the end of the federal funding period.

Trainee Induction Procedures

The development of a set of procedures for trainee induction into the overall training program, the evaluation of these procedures and the determination of a set of operating procedures for routinely accomplishing this task will be completed by the training coordinating center. Each training site will have its own induction procedures unique to and descriptive of the training site and the training projects at that site. The training coordinating center, however, will be responsible for establishing effective mechanisms for overall trainee induction.

Job Development Procedures

The development and evaluation of the operating procedures utilized in locating suitable job opportunities for trainee placement will be a task assigned to the training coordinating center.

Provision of Credentials

Most of the trainees will deserve some credentials by the university members of the consortium, probably at the level of a master's degree in development or evaluation. All of the trainees deserve some kind of complete statement of credentials from the training program. This statement will sketch in detail the kinds of competencies which have been developed by the trainee in the training program and the context within which these competencies have been developed and demonstrated. A critical task of the training coordinating center will be the development of mechanisms for the:

1. Provision of credentials
2. Evaluation of the effectiveness of different kinds of credentials
3. Establishment of an operating procedure awarding credentials reflecting various sets of competencies

Public Relations and Dissemination

The training program must maintain a continual program of public relations both among members of the consortium and among other potential employing institutions in the field. The training program also has a responsibility to the wider world of training programs by disseminating procedures and mechanisms which have demonstrated effectiveness. The development of such public relation and dissemination mechanisms and the establishment of effective operating procedures must be accomplished by the training coordinating center within the three-year federal funding.

THE FUNCTIONS OF THE SITE/PROJECT

The following functions involving development, evaluation and operation must be performed by the site/project locus of management although in many instances strong assists will be available from, and coordinated with, the training coordinating center.

Trainee Monitoring

Efficient procedures must be cared for at the site/project level for developing, evaluating and operating an onsite monitoring system. Such a system would allow detailing of periodic progress by trainees in achieving their negotiated profile. Monitoring data generated will be supplied to the training coordinating center.

Trainee Instructional Materials (Nonseminar)

This function concerns the development, evaluation and operation of suitable instructional materials not initially available at the site. Although anticipated instructional resources may be inferred from trainee needs (as per trainee/site profile interface) ongoing experiences will further dictate materials to be generated at the site level. The site will also serve a field test function for evaluating the operational effectiveness of materials developed at the training coordinating center.

Trainee Content Seminar

Periodic seminars conducted by the training site coordinator utilizing a variety of content or profile task-directed instructional materials will be held for trainees and offered to other project staff members.

Presentational mode, content alternatives, participant response and a host of related concerns must be carefully developed, evaluated and operated over time. The coordinating center must assess each training site's experience to determine optimal seminar conditions.

Trainee Field Problems Seminar

In addition to content concerns, a trainee's experience of problems encountered within the project training context must be cared for. This seminar allows trainees (and others) to share concern for problems and solutions. It will deal with a variety of areas, including interpersonal relationships.

As with the content seminar, the field problems seminar may operate in a variety of ways at different sites and requires site treatment and reporting to the coordinating center.

Trainee Supervision/Tutorial

There will be a close working relationship within the project context between trainees and other project staff who serve as trainers at this level. Optimal procedural development, evaluation and operation will occur over the funding period in order to achieve appropriate guidelines for the supervision/tutorial process.

Staff Training

Not only is staff training an ongoing developmental process with existing staff, but there will also be the situation of staff turnover necessitating a complete training cycle.

The development, evaluation and operation of appropriate site-based training programs for staff will be critical to the continuity and success of the entire program.

Clerical/Technical Support

Site functions will generate a great deal of materials and data both utilized at the site and transported to the coordinating center. Sufficient clerical/technical support at the site level is essential to guarantee effective operation. Procedures for the operation of the support arm will have to be developed and evaluated.

Other Trainees' Instructional Experience

On occasion, it may be found necessary to supplement a trainee's onsite instructional experiences by arranging offsite experiences such as limited course work at a university, attendance at a skill-building conference, observation of performance in a different context, etc. Procedures for managing the development, evaluation and operation of this function must be generated throughout the duration of the program.

ABILITY OF THE INSTITUTIONS IN THE CONSORTIUM TO FULFILL THEIR ROLE

The institutions which compose the consortium that will make the training program operational are all presently engaged in educational programs utilizing a field-centered approach. It is evident from their present operations that these agencies are committed to and experienced with this type of training program. Staff members functioning in these programs will contribute a wide range of experience and background as consultants to the staff that will direct this program. In actuality, the field-based model of this training program for developers and evaluators is an extension of the numerous field-centered programs now being conducted by consortium members.

Teaching Research

The Teaching Research Division of the Oregon State System of Higher Education, in Monmouth, Oregon, serves the public elementary and secondary schools, and the two-year, four-year, and professional schools of higher education in the State of Oregon. It is an inter-institutional instructional research, evaluation and development agency. In addition, the Division is extensively involved in out of state and federally funded projects.

Teaching Research has a professional staff of approximately 65, with additional media production specialists and support personnel. Total staff is approximately 100. During its ten years of operation, the Division has undertaken more than 100 projects. The annual budget exceeds $1 million.

Activities at Teaching Research are decentralized, management responsibility is shared, and there is ample opportunity for meaningful professional identification. Not only does each individual have the opportunity to work within the project and program of his choice, and do so within a group of manageable size, but he is also free to initiate projects or programs that are reflective of his interests. Furthermore, he is free to move across projects or programs in pursuit of that which is personally and professionally most relevant.

Particular, Relevant Experiences of Teaching Research

The Division has had considerable experience in the preparation of instructional materials that deal with research, development and evaluation concerns as well as in conducting institutes for the training of personnel around these activities.

CORD Training Institutes. In the spring of 1967, the Division applied to the U. S. Office of Education for a grant to conduct a national research training institute for small college participants in consortium research development (CORD) projects. A separate proposal was submitted to the U. S. Office of Education for a project to develop a program of materials for short-term educational research training programs. As a result of this effort, several training institutes were conducted across the United States and a set of instructional materials was produced.

ComField Project. Another endeavor which is related to the proposed program was the ComField effort (Competency-based, Field-centered). This project was in two major phases. It dealt first with defining a model elementary teacher-education program. Teaching Research in cooperation with other consortium members directed the efforts of the Northwest region, including Alaska, Idaho, Montana, Oregon and Washington. A second phase of this work translated the model specifications into feasibility plans for the model teacher education program to be implemented at Oregon College of Education.

RED Train Project. The RED Train project is an extension of some of the experiences gained from the CORD activities. It deals specifically with providing research, evaluation and development training for personnel in school districts in Oregon. The instructional program takes place largely in the actual work settings of the trainees. This project is still ongoing and will result in a cadre of trained research personnel in several school districts in Oregon as well as a set of training materials appropriate for the elementary and secondary personnel level. It has employed a field-centered, competency-based, individually-negotiated approach, particularly in its second year, utilizing the Evaluation Training Materials described in the project below.

Evaluation Training Materials Project. Another project that will contribute to this proposed program is the production of a training manual in evaluation. Its focus is the strategy of evaluation design.

RDD&E Base Project. This spring, the Division was awarded a contract from the Office of Education to generate information to support long-term planning for training programs in educational research, development, diffusion and evaluation.

PPBS Projects. The Division has extensive experience in working with several school systems in the planning and implementation of data-dependent systems for instructional management.

Oregon State University

The Portland Urban Teacher Education Project. The Portland Public Schools and Oregon State University (OSU) are jointly engaged in a program to train teachers of the disadvantaged within a public school setting. Trainees involved are adults who hold a bachelor's degree and are not presently certified as teachers. The racial composition of the group is three-quarters Black, with the remaining quarter Caucasian, Oriental or Indian. This federally funded program, "The Portland Urban Teacher Education Project," has been in operation since June 1969, and will continue at least through June 1971. The program has already produced eighteen certified teachers out of an original twenty participants, twelve of whom are Black. The instructional program takes place at John Adams High School in Portland under the direction and supervision of personnel who hold joint appointments with OSU.

The OSU-John Adams High School Teacher Education Project. This project is cooperatively supported by the two agencies and represents an alternate approach to existing undergraduate teacher education programs. Juniors in the school of education, largely majoring in industrial education, spend an entire semester resident at Adams. The major portion of the training again is accomplished at John Adams High School under the direction and supervision of personnel who hold joint appointments with Oregon State University.

The OSU-CORVALLIS School District Junior High Teacher Education Project. This project is funded by the Oregon Educational Coordinating Council and the Corvallis School District. It represents a cooperative venture to develop a teacher education complex. Most of the training is conducted in the local junior high schools.

Careers Oriented Relevant Education (CORE). This program, operated by OSU, is a federally sponsored, three-year project to train teacher aides and teacher associates in a field setting. College students from freshmen through seniors are participants in the project. Teachers and community members are also actively engaged in curriculum modification activities for purposes of designing a curriculum which is more meaningful for children.

Other programs of a similar nature are also under way, such as the Contemporary Education Course 211 for college sophomores, Cooperative Elementary Guidance Program, The Effective Group Instruction for Teachers 371X course and the Teacher Corps Program which is completing its second year of operation.

University of Washington

The School of Education at the University of Washington has been involved intimately for nearly twelve years in various forms of field-centered instruction, many of which approximate the model in this design. In the Administration Program, field placement or internship is required. These internships take place in a wide variety of settings in Seattle and the surrounding school districts, and are carefully supervised by the university personnel.

In undergraduate teacher education, the University of Washington has pioneered the "Intern Center," an agreement with a school district to use a building, or the entire district, as a special training center. Each center has a full-time director, and within the center a performance-based teacher education program is carried on. While the details vary from district to district, there are now intern centers established in four school districts, involving some fifty-eight interns in an undergraduate teacher certification program.

The Bureau of School Services trains six to eight administrative interns in research by involving them in school district research projects. Most of these trainees are experienced administrators on sabbatical leave from their districts to receive sufficient training to become research directors. They receive their training through the practicum experience of being a director or codirector of a project.

Several other training programs require substantial field experience.

The University of Oregon

The University of Oregon is in its fourth year of operating a new school, "The Lila Acheson Wallace School of Community Service and Public Affairs." This school is committed to undergraduate education for social and public service and is particularly concerned with instructional innovations for practical action in field work. The school prepares individuals for careers in city management, social work, corrections, counseling, community organization, cultural services, community arts development, urban development and applied social research. The keynote of the program is field instruction. Students are provided extensive opportunities to learn through direct participation in ongoing activities of organizations and communities. One full term of field placement is required in conjunction with seminars in "Theory-Practice Integration."

The Bureau of Educational Research, University of Oregon, provides field experiences for graduate students in the form of comprehensive studies of schools both within Oregon and other states that contract for these services. Students are provided extensive opportunities to investigate existing school programs in depth. An analysis is made of these programs and specific recommendations formulated for the overall improvement of educational offerings. Graduates who have participated in this program are presently employed as school administrators, researchers and college professors.

The Center for the Advanced Study of Educational Administration (CASEA) is also housed at the University of Oregon and provides extended involvement opportunities for students in education. Research studies of a national scope have been conducted out of this center. The study of school superintendents, Issues and Problems in Contemporary Educational Administration, is an example of a research project which had a direct influence upon the U. S. Office of Education and its funding programs.

The Northwest Regional Educational Laboratory

A major portion of the work of the Northwest Regional Educational Laboratory (NWREL) is conducted in the field as products are tested in the setting in which they will eventually be used. A wide range of instructional systems are being developed as products to improve the effectiveness of teaching and learning. Laboratory efforts are focused upon three areas: improving teaching competencies, improving education for intercultural populations, and improving education for youth in isolated rural schools. The design, testing and evaluation of these new materials is a cooperative effort with educators in Alaska, Idaho, Montana, Oregon and Washington.

Programs for the improvement of teaching competencies include:

Questioning Strategies. A system designed to prepare teachers to use various methods of asking questions which lead students to more productive thinking.

Facilitating Inquiry in the Classroom. A system to assist teachers to use teaching strategies which increase students' ability to inquire.

Systematic and Objective Analysis of Instruction. This design provides teachers with skills in interpersonal relations and supervisory techniques to improve instruction.

Research Utilizing in Problem Solving. This process prepares teachers and administrators to use techniques for defining, analyzing and solving problems.

These products, as well as staff competence in field-oriented activities, will be a vital resource pool for the program staff. As a training site, the field-centered opportunities are unlimited.

The Portland Public Schools

In addition to its participation with Oregon State University in field-centered teacher education programs, the Portland Public Schools have abundant opportunities for, and experience in, field-centered programs.

Every year the district supports a massive inservice teacher education program. Summer institutes, as well as evening courses during the school year, are staffed and supported by the district.

The school district has recently embarked on a massive effort to reorganize its administrative structure along the lines of a program-planning-budgeting system (PPBS). This has created an enormous number of projects, particularly in evaluation, which are potentially available.

The Oregon Board of Education

The Oregon Board, of course, does not run training programs. It has consistently supported and encouraged more field-oriented training. It does run a large number of projects, particularly evaluation projects, from its offices in Salem, and may become the fourth training site if the proposed training program is capable of expanding.

TIMELINES BY EVENT AND TASK

The following five charts depict the projected time line for accomplishing each of the development and continuing tasks. For greater clarity, a definition of each task is provided prior to the appearance of the timeline chart.

Task Descriptions To Accompany Timeline Chart
Event I - Trainee Recruitment

Development Task 1: "Brochure"

A summary description of the training program will be written. Additional information such as goals of the program, benefits to be realized by trainees, those eligible to apply, deadline dates for application and members of the consortium will be provided. An application format will be developed containing specific information about the candidate for screening purposes. The program staff in consultation with a printing agency will develop and produce the brochure.

Development Task 2: "Preliminary Interview Form"

An interview form will be developed by program staff for purposes of gathering additional data regarding each applicant. The information will consist of:

1. Present experience
2. Professional aspirations
3. Anticipated future job
4. Alternative possible jobs

Interviewers will receive training in the use of the interview form, probing techniques, data checking and recording.

Development Task 3: "Slide Tape Presentation"

A profile of tasks performed by individuals holding positions in development and evaluation will be designed. Extensive use will be made of the materials produced by the RDD&E study conducted by TR. A format for presentation of the profiles will be designed with assistance from an audiovisual consultant. A slide tape will be produced for each area (development and evaluation) by an audiovisual production agency.

Continuing Task 1: "Distribution of Brochure (And Personal Contact)"

A list of agencies will be generated (by the program staff with assistance from the Governing Council) that have close contact with individuals possessing those qualifications essential for consideration as a trainee. Brochures will be mailed to key staff members for distribution within the agency. Personal contact will be made with a number of key staff members to discuss program and candidate referrals.

Continuing Task 2: "Initial Screening"

Each application will be classified according to area of interest (development or evaluation) and ranked within classification according to qualifications as indicated by information contained in the application and personal references. Some initial "weeding out" of obviously misplaced or inappropriate candidates will take place.

Continuing Task 3: "Initial Conference (With Planning Time)"

The initial conference program will be designed by the program staff following the format:

Introductions
Program design and procedures
Small group discussions
Luncheon
Individual interviews

A comprehensive description of the training model will be prepared for oral presentation. Procedures for presenting the slide-tape review and supplementary materials for discussion will be developed. Staff members will be assigned to specific responsibilities within the program. Facilities will be scheduled for small group discussions and individual interviews.

Continuing Task 4: "Followup Dossier Completion on Trainee"

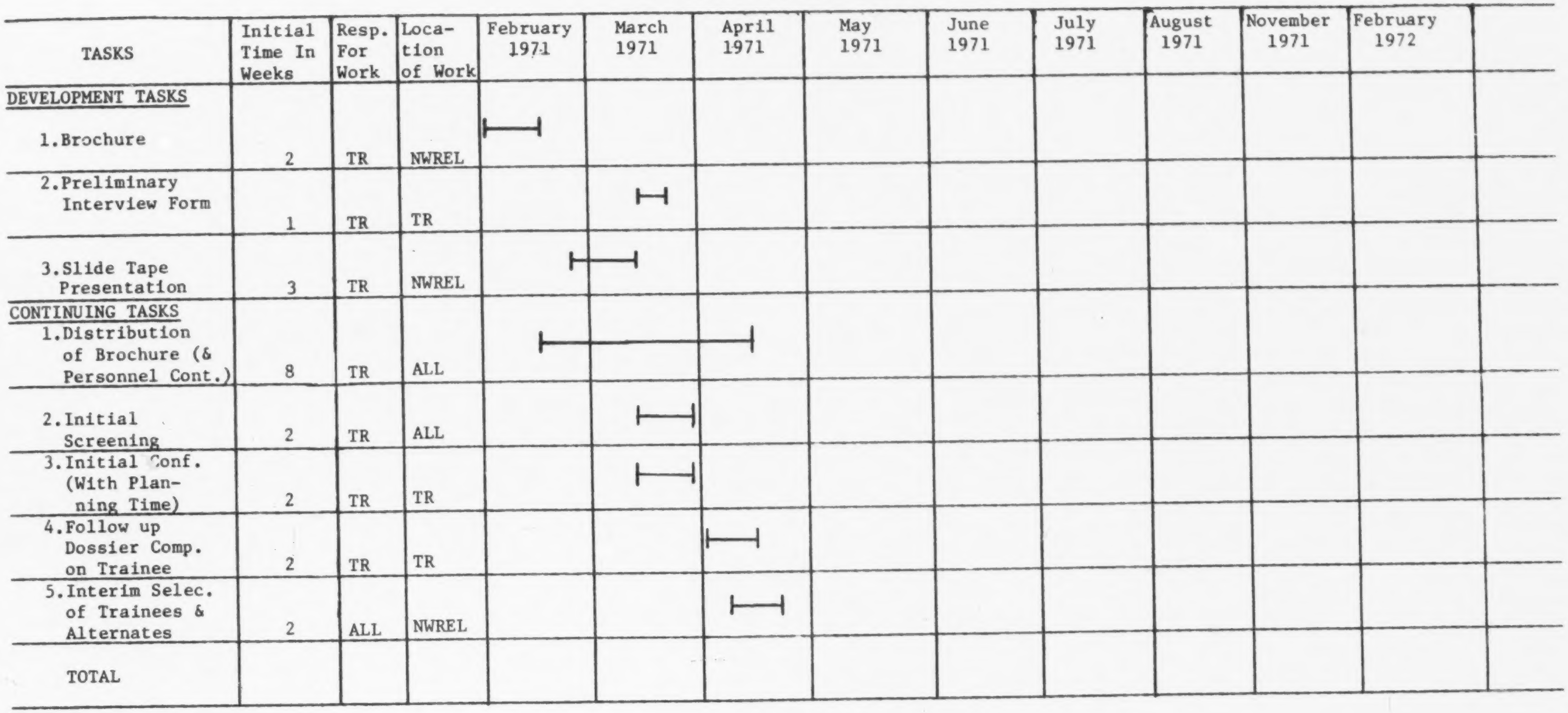
A followup of all references of each candidate will be made through personal contact. A folder containing the candidate's application, transcript of training, rough profile of experiences and aspirations, reference narratives and the interviewer's assessment of candidate's potential will be compiled.

Continuing Task 5: "Interim Selecting of Trainees and Alternates"

The program staff will complete a summary assessment of each candidate and present it to the total group. Each candidate will be classified according to development or evaluation and ranked as to training potential. Twenty-five candidates will be selected as interim trainees and four as alternates. All applicants will be notified of their status.

CHART 3 TIMELINE EVENT I

TIMELINE
EVENT I: TRAINEE RECRUITMENT



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972
DEVELOPMENT TASKS												
1. Brochure	2	TR	NWREL	├─┤								
2. Preliminary Interview Form	1	TR	TR		├─┤							
3. Slide Tape Presentation	3	TR	NWREL	├──	─┤							
CONTINUING TASKS												
1. Distribution of Brochure (& Personnel Cont.)	8	TR	ALL	├──	────	─┤						
2. Initial Screening	2	TR	ALL		├─┤							
3. Initial Conf. (With Planning Time)	2	TR	TR		├─┤							
4. Follow up Dossier Comp. on Trainee	2	TR	TR			├─┤						
5. Interim Selec. of Trainees & Alternates	2	ALL	NWREL			├─┤						
TOTAL												

Consortium Participants

PROGRAM: Consortium Program Funds
NWREL: Northwest Regional Educational Laboratory
OSDE: Oregon State Department of Education
OSU: Oregon State University

PPS: Portland Public Schools
TR: Teaching Research
UofO: University of Oregon
UofW: University of Washington
ALL: All Consortium Members

Task Descriptions to Accompany Timeline Charts
Event II - The Induction Process

Development Task 1: "Competency Profile Instrument"

Once the tasks within each competency area are specified and arranged in order of difficulty, the display and recording formats can best be developed through the process of trying out the procedure with a variety of test subjects. Probably at least ten trainee-subjects should be used, with time in between for revisions of the procedures, form, and display formats.

Before the initial trial interviews, an example should be generated for each task, and written up in a form for presentation. By carefully recording test-subject reactions to these documents, and their suggestions for change, these can be successively altered and improved.

The examples used for explanatory purposes should form the basis for any simulated assessment procedures. Once written up and improved, the entire set of examples should be able to be turned over to a simulation/assessment team who could generate the first set of assessment simulations. These, too, should be tried out on a group of subjects who are known to possess the competency being assessed.

Development Task 2: "Field Survey to Derive Model Competency Profiles"

Once the competency profile generation procedures are tested, a systematic survey of all types of educational institutions must be made to determine the kinds of educational development and evaluation personnel they most need, and to translate these job openings into the competency profile format, indicating the minimum profiles which they would hire for these jobs. This will be done by interviewing the directors of these various institutions, and asking them to indicate employees who come close to the kind of individual they want. Then these individuals will be rated on the competency profile device. This survey procedure should be repeated quarterly to keep up to date the job openings which need filling, and every effort should be made to expand the institutions which are so surveyed.

In addition, a selection of employees at various salary levels in each institution should be rated on the competency profile and their profiles provided as examples.

Development Task 3: "Profile Validation"

The criteria for profile adequacy for the training program should be based on this information generated from the field, and continuously updated. This involves determining some mathematical or other method for combining the many profiles derived from the field and determining some minimal levels in certain things, along with some overall competency levels on which the training program should insist.

Once the simulation assessment devices are developed and adequately tested for operational purposes, an attempt should be made to determine the degree of difference in the competency profiles of persons who can perform the simulation test as opposed to those who cannot. This implies testing the assessment devices on a large sample of subjects. This cannot be done for all of the devices, but if done for a few, it is hoped that useful rules-of-thumb will be developed. The appropriateness of any profile adjustments based on these devices will become more apparent as the trainees are tracked through the training program.

Development Task 4: "Slide-Tape Refinement"

The initial work in the development of the slide-tape presentation which explains the overall training program will be finished for the initial trainee meeting in February. For the March meeting this slide-tape could be improved if any improvements seemed necessary. Then, additional slides would have to be developed which dealt with the competency profile and its role in the training program in such a way that the trainee understood its importance. Once the staff determined the content of this portion of the slide-tape, the development could be turned over to a slide-tape development group.

Development Task 5: "Instructional Materials for Training Staff"

Materials will be developed to assist in the training of the training staff in such areas as preparing competency profiles, conducting the induction interviews and functioning in an operating setting.

Development Task 6: "Instructional Materials for Trainees"

Once the tasks in the competency profile are determined and the nature of the products which would satisfy the competency specified, a team should be set to work identifying all the existing instructional materials relevant to the successful production of each product. These materials would include text books, articles and all other instructional materials.

Copies of all available materials should be purchased in sufficient numbers of sets for each of the training sites, and should be arranged and catalogued for ready access and use in a field setting.

Determination should be made of all tasks for which no instructional materials, or no good instructional materials exist, and for these, a group of developers set to work to develop some appropriate materials.

Continuing Task 1: "Selection and Training of Training Staff"

The training staff should be made up of persons with experience teaching in a university setting and members of the projects which will be the training contexts once the program becomes operational, particularly the directors of such projects.

The directors of each of the consortium institutions will be asked to nominate possible training staff personnel from their institutions. A file on these nominees will be developed, including a competency profile rating.

The Governing Council of the Consortium will make the selection of the training staff, taking into account both the strength of the project with which any potential staff member is associated, and the strength of the nominee himself. It is expected that the project with which a nominee is associated will become a training project. The training staff must have the confidence of all members of the consortium.

Once the training staff is selected, substantial training will have to be conducted to familiarize the staff with the training program, with the competency profiles, with the responsibilities of a training staff member in an operating setting, and to perform the Induction Interview Process.

Continuing Task 2: "Induction Interview Process"

The twenty-five applicants will meet for one week with the training staff. Activities will include orientation, completion of a competency profile with task analysis, scoring of the profile, completion of a proposed profile, verification of competency ratings and final determination of the competency profile including ordering of competency tasks within the profile.

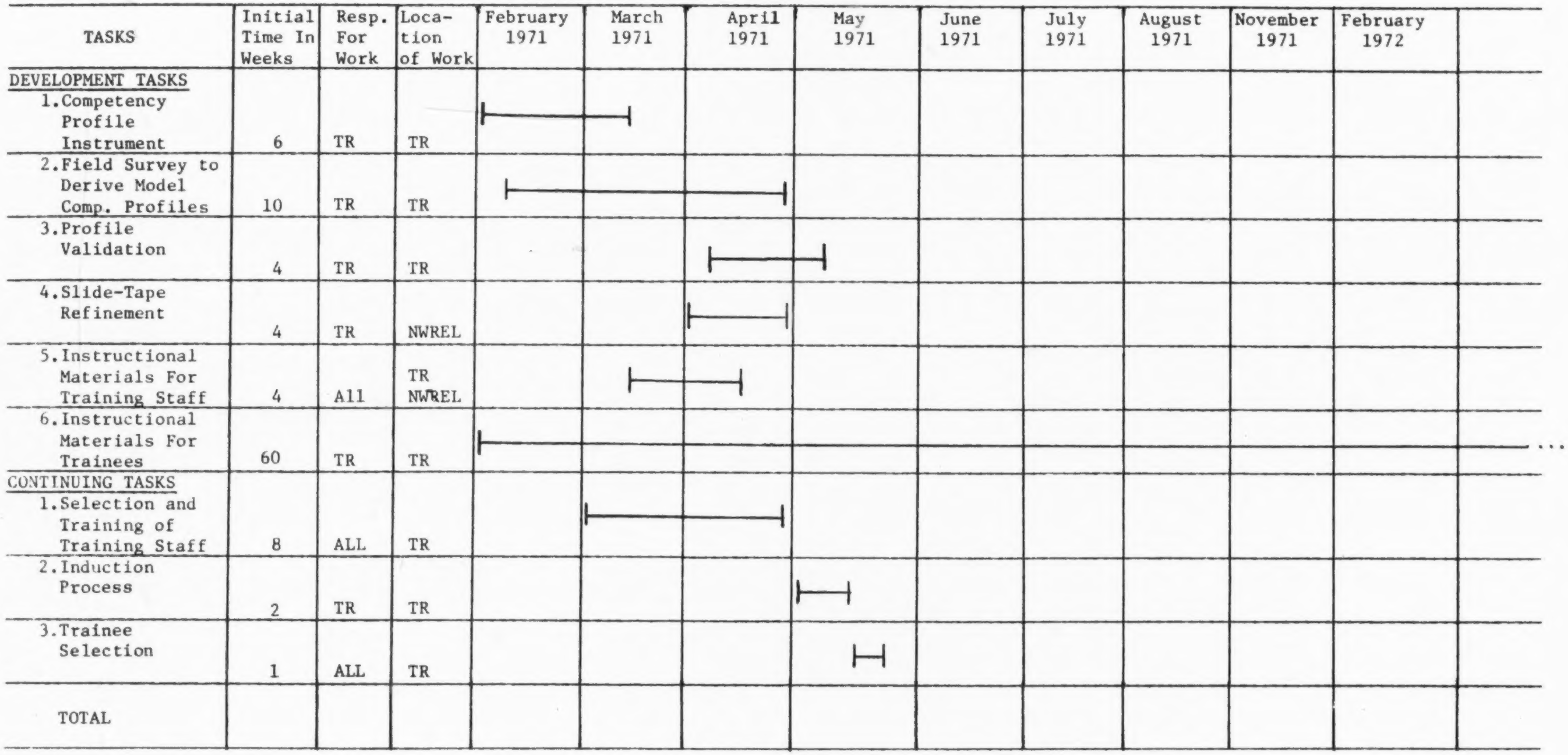
Continuing Task 3: "Trainee Selection"

Final selection of fifteen trainees and two alternates will be made and announced.

CHART 4 TIMELINE EVENT II

TIMELINE
EVENT II: THE INDUCTION PROCESS

(Screening of 25 Applicants to 15 Initial Trainees)



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Competency Profile Instrument	6	TR	TR										
2.Field Survey to Derive Model Comp. Profiles	10	TR	TR										
3.Profile Validation	4	TR	TR										
4.Slide-Tape Refinement	4	TR	NWREL										
5.Instructional Materials For Training Staff	4	All	TR NWREL										
6.Instructional Materials For Trainees	60	TR	TR										...
CONTINUING TASKS													
1.Selection and Training of Training Staff	8	ALL	TR										
2.Induction Process	2	TR	TR										
3.Trainee Selection	1	ALL	TR										
TOTAL													

Task Descriptions to Accompany Timeline Charts
Event III - The Trial Projects

Development Task 1: "Field Problems Seminar Development"

Through discussions with the Governing Council and others experienced in field-centered training programs, as complete a list as possible of probable problems and issues must be generated. For each of these, instructional procedures must be sought out or developed to examine the issue or problem and to help trainees and staff decide how to deal with the issue when it comes up. If there is a solution preferred by the Governing Council, this will be the focus of the training program. If, as seems likely, many of the problems will have no solution except an agreed way to handle the problem if it comes up, the need will be to train staff and trainees in the procedures.

It is anticipated that many of these procedures will best be learned by the techniques of role playing, improvision and group process. Once a particular problem is confronted, every effort will be made to run the trial project in the future according to the best solution generated by the seminar. In this way both the staff and the trainees will become socialized into a set of procedures which make learning possible through ongoing project experiences.

It seems that one critical need will be to develop procedures for confronting new issues if and when they arise. The staff will establish before the trial project begins, a procedure for allowing the confrontation of new issues.

Development Task 2: "Conference and Supervision Training Materials"

Prior to the beginning of the trial projects, the staff must be trained in the techniques of supervision and conference-counseling. If the trainee is to learn, this will involve some determination ahead of time of what is legitimate in the way of help and supervision, and what is not. Furthermore, the staff will have to agree to meet regularly to discuss various supervision problems, and to put together other support procedures for handling trainees with severe difficulties.

It is anticipated that as much as a week of training will be necessary, based largely on the role playing of various possible problems that a trainee might bring to his supervisor. These role-playing situations will be videotaped and discussed; guidelines will be developed for the supervision sessions.

Continuing Task 1: "Selection (or Creation), Staffing and Planning of the Trial Project"

Once the initial negotiated profile on each trainee has been derived, and the trainee has selected the three areas in order of preference where he would like to start, the need will be to either select or create some trial projects which maximize the fit between the needs of the trainees and the needs of the projects. These trial projects will serve to test out the procedures to be used in actual field projects,

to teach the training staff how to operate a training program within a project context, and to train the trainees how to learn from such settings. If fifteen trainees are selected, it is estimated three trial projects would be sufficient, probably located in three different institutions in the consortium.

Nominations of possible trial projects will be received from the consortium institutions. Additional projects which each of the institutions would like to see done will also be derived. Once the needs of each of the projects have been assessed, these will be matched with the training needs of the trainees.

If the projects are satisfactory, they then will be staffed by the designated staff of the training program, making whatever provisions are necessary to release such designated staff from their institutions to take part in the trial project.

As soon as the trial projects are selected and staffed, the plans for the project and timelines will have to be laid out so they include the requisite experiences for the trainees, and so the requirements of the project can be satisfied within the time limits of the projects. This will be done by the project staff.

Continuing Task 2: "Site Arrangements"

Once the trial projects have been selected or created, the necessary support, space and equipment will have to be placed at that site. A list of needs will be generated by the project staff based on the needs of the project, of the trainee and of the development of procedures for the training program. The project directors of the trial projects will negotiate with each institutional site for each of the list of needs, with virtually the entire cost being borne by the training program. The arrangements between the trial project and the site will be written into a legal subcontract which will serve as a prototype for future agreements with all training projects.

Continuing Task 3: "Scheduled Seminars, Conferences and Staff Meetings"

With the demands of testing the procedures of the training program in mind, with the needs of the trainees and the needs of the projects, the staff must determine a schedule of meetings during the life of the trial project which permit all to happen. On the basis of the trial project's experience, the relative incidence of each kind of meeting could be altered as necessary, and a new schedule developed for use in the actual field projects.

Continuing Task 4: "Content Seminar Planning"

The intent of the Content Seminar is to be responsive to the needs of the trainees in successfully completing their tasks, while also going beyond the particular task each trainee has and generalizing the

particular experience. Therefore, the most important work to be accomplished will be the determination of procedures to assure optimal content relevance for the trainee and plans for organizing, presenting and monitoring their effectiveness.

Probable content areas must be determined ahead of time, and preliminary work done in planning instruction related to these areas. This must be done by the project staff, once the tasks of completing the project are specified. Then, individuals must be identified to lead a seminar session on these topics. They must be put on call for whenever the topic may arise. It is anticipated that many of the topics will be within the competence of the training staff.

Once the content area for any seminar session is established, the evaluation procedures to assess that seminar must be determined and implemented.

Continuing Task 5: "Content Seminar Operation"

One content seminar per week will be conducted for trainees at trial project sites. Training staff and consultants will participate. Seminar content will be responsive to trainee needs in task performance.

Continuing Task 6: "Field Problems Seminar Operation"

One field problems seminar per seek will be conducted for trainees at trial project sites. Training staff and consultants will participate. Seminar content will depend heavily upon incidents reflecting a range of possible task performance and interpersonal behaviors.

Continuing Task 7: "Conference and Supervision Training and Operation"

The ongoing supervisory program is designed to respond to trainee needs primarily through the function of training staff and consultants utilizing videotaped role-playing episodes.

Continuing Task 8: "Assessing of Competence in Context"

Criteria for the assessment of each trainee product will have been specified. Examples of work satisfying those criteria, and work not satisfying those criteria, will be available. The training staff will need to practice assessing trainee work carefully according to the criteria established, and in the manner suggested by the competency profiles. At the end of the project the effectiveness of these procedures will need to be assessed.

Continuing Task 9: "Trial Project Operation"

Fifteen trainees will be assigned to three trial project sites at an approximate ratio of five trainees per site.

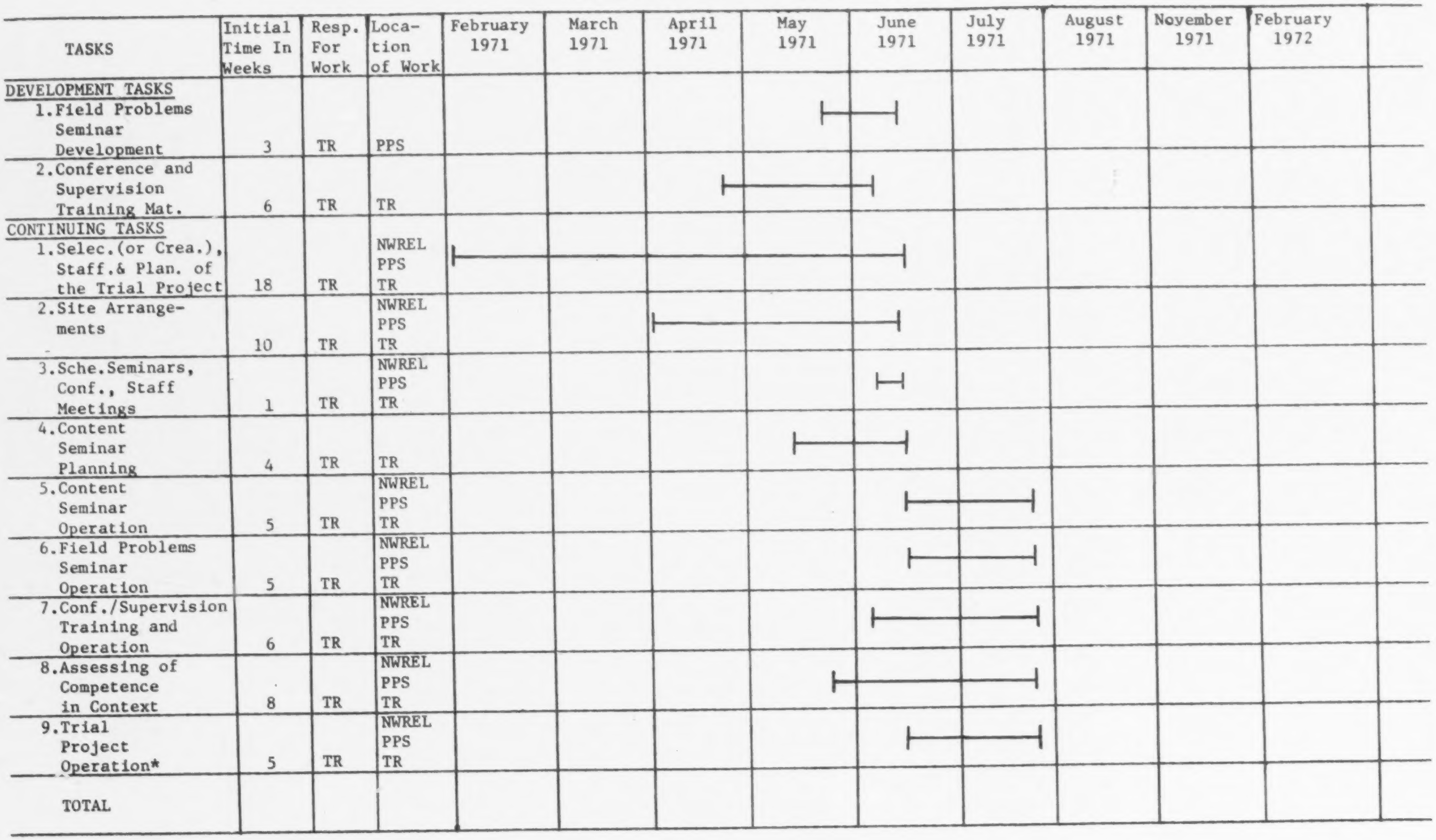
The experience will be for five weeks incorporating competency profile task practice in an operational setting, conferences and seminars as scheduled (and described in earlier task descriptions).

Trainees will interact with advisors and training staff who will continue into the actual projects Event IV.

CHART 5 TIMELINE EVENT III

TIMELINE

EVENT III: THE TRIAL PROJECT(S)*



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1. Field Problems Seminar Development	3	TR	PPS										
2. Conference and Supervision Training Mat.	6	TR	TR										
CONTINUING TASKS													
1. Selec. (or Crea.), Staff. & Plan. of the Trial Project	18	TR	NWREL PPS TR										
2. Site Arrangements	10	TR	NWREL PPS TR										
3. Sche. Seminars, Conf., Staff Meetings	1	TR	NWREL PPS TR										
4. Content Seminar Planning	4	TR	TR										
5. Content Seminar Operation	5	TR	NWREL PPS TR										
6. Field Problems Seminar Operation	5	TR	NWREL PPS TR										
7. Conf./Supervision Training and Operation	6	TR	NWREL PPS TR										
8. Assessing of Competence in Context	8	TR	NWREL PPS TR										
9. Trial Project Operation*	5	TR	NWREL PPS TR										
TOTAL													

*Figured on the basis of three trial projects and 15 trainees.

Task Descriptions to Accompany Timeline Charts
Event IV - Actual Project Assignments

Development Task 1: "Procedure for Describing Project in Detail"

The specific procedure will be developed and may consist of the data collection techniques developed by Schalock, et al., (1970) for describing a project.

Development Task 2: "Maximum Fit--Computer Matching Program"

To achieve the best possible fit between projects available and trainee desires as reflected in their competency profile, a computer program will be developed.

Development Task 3: "Orientation Program for Each Site"

The major development effort which must be done for orientation purposes is the work on orienting trainees to an institution. This will take an interview team to develop the information, and another specialist to put it into an orientation package.

Development Task 4: "Project Site Arrangements (Per Site)"

As soon as the number of trainees to be placed at a site has been determined, the core staff must negotiate with the site institution for the necessary support facilities and problem-handling mechanisms to permit the training program to operate. It is anticipated that the Governing Council will facilitate such negotiations. The most necessary arrangements seem to be staffing, staff training and staff relationships; space for offices, seminars, and the library; and the problem-handling mechanisms.

Continuing Task 1: "Assembly of Detailed Information on Each Training Site"

Each project nominated as a possible training project will be visited by a project analysis team trained in the data collection techniques developed for describing a project. Out of this procedure will fall a complete description of the proposed training project.

Once a preliminary determination of possible training projects is made, based on the match between the tasks to be done and the needed training experiences, interviews must be conducted with the project director and the project staff to determine their receptivity to becoming a training project and to undergoing instruction in running their project as a training project.

Assuming success in this, a procedure must be established for negotiating trainee placements and experiences when the time comes. The description of the project must be updated, and used as a basis for determining what trainee experiences will be provided for incoming trainees. These agreed-upon experiences must be written into a contract for the trainees, and the training project.

Continuing Task 2: "Matching of Trainees to Available Experiences"

Since each trainee will indicate his first three preferences for areas of concentration, it is a simple mathematical procedure to maximize the fit between these choices and the available training experiences. Probably the computer program would be used to calculate this. Once trainees were matched with projects, the detailed specification of the experiences of the trainee would be worked out with the project director, and written into an agreement.

With the experiences specified, it would be a simple matter to determine the length of time the trainee would be with the project, depending on the timelines of the project and the availability of the experiences.

Continuing Task 3: "Project Site Operation"

Operation assumes five trainees (not necessarily the same persons) for a period of one year at a site.

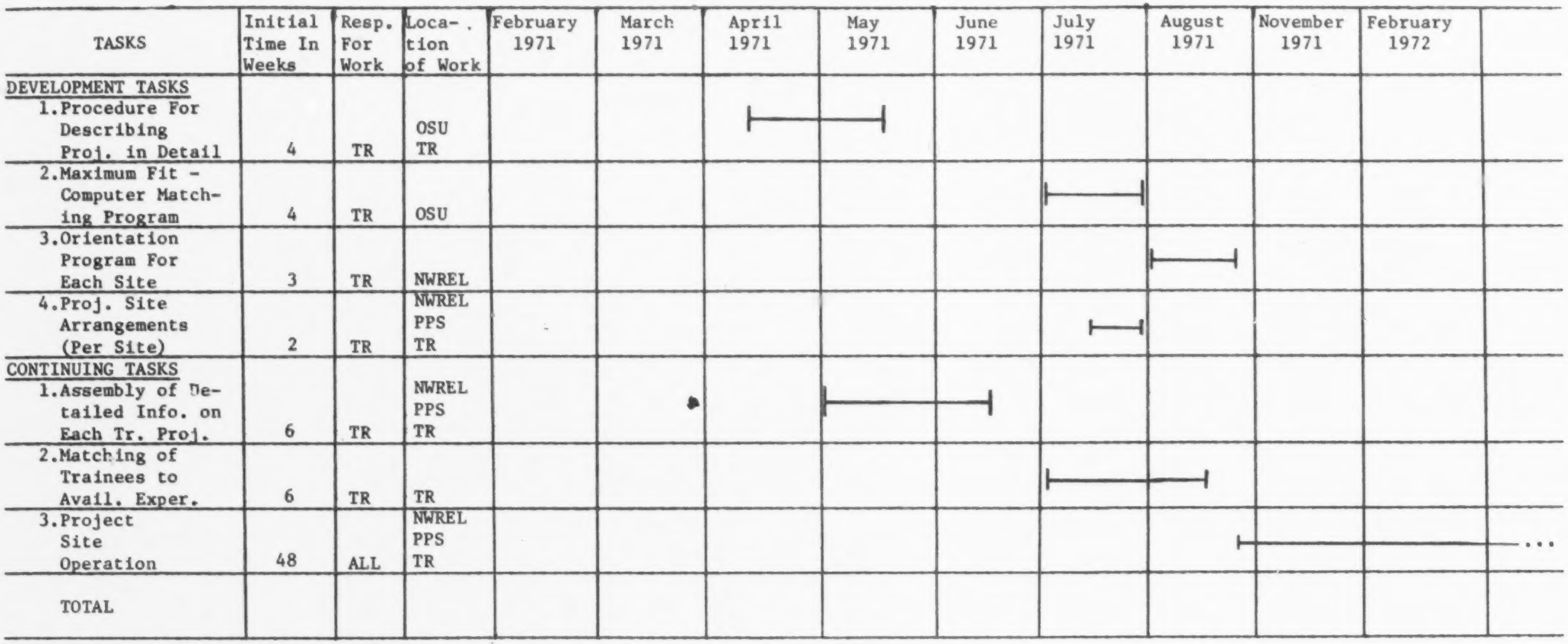
Partial maintenance of trainees, training director and central program operations is reflected in the budget.

Products from tasks accomplished in previous event descriptions will be utilized.

CHART 6 TIMELINE EVENT IV

TIMELINE

EVENT IV: ACTUAL PROJECT ASSIGNMENT(S)*



TASKS	Initial Time In Weeks	Resp. For Work	Loca- . tion of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Procedure For Describing Proj. in Detail	4	TR	OSU TR										
2.Maximum Fit - Computer Matching Program	4	TR	OSU										
3.Orientation Program For Each Site	3	TR	NWREL										
4.Proj. Site Arrangements (Per Site)	2	TR	NWREL PPS TR										
CONTINUING TASKS													
1.Assembly of Detailed Info. on Each Tr. Proj.	6	TR	NWREL PPS TR										
2.Matching of Trainees to Avail. Exper.	6	TR	TR										
3.Project Site Operation	48	ALL	NWREL PPS TR										...
TOTAL													

*Most trainees will have several assignments.

Task Descriptions to Accompany Timeline Charts
Event V - Termination Process

Development Task 1: "Certification Standards (Program)"

Certificates which list and testify to competence must be developed. The nature of these certificates and the issuing body must be determined.

Appropriate certificates will be printed.

Development Task 2: "Certification Standards (Academic)"

A determination of course and degree levels, if any, appropriate to sets of training experiences must be made.

It is anticipated that the Governing Council (and particularly its degree-granting institutional members) will resolve this issue.

Continuing Task 1: "Job Market Survey"

Job opportunities in the field for trainees who have completed their programs must be determined and updated by the central program office.

Continuing Task 2: "Placement of Certified Trainees"

Placement will be an ongoing responsibility of the central program office which will identify potential employers, translate needs into competency profiles, match trainees to job opening profiles, and notify parties of a possible match.

CHART 7 TIMELINE EVENT V

TIMELINE
EVENT V: TERMINATION PROCESS

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1. Certification Standards (Program)	4	TR	TR	├──┤									
2. Certification Standards (Academic)	8	TR	OSU UW UO ST.BOARD	├──	──┤								
CONTINUING TASKS													
1. Job Market Survey	12	TR	STATE BOARD						├──	────	──┤		
2. Placement of Certified Trainees	48	ALL	TR UofW OSU UofO										├──...
TOTAL													

BUDGET

The budget charts which follow reflect estimated costs for each of the five major events spanning the first one and one-half years of the grant period (six month planning and development phase followed by first year operational phase). These major events were described earlier in this report in the sections, "A Simulation" and "Timelines by Event and Task."

Each event budget displays total costs (by major budget category) referenced to specific development and continuing tasks which are totaled separately.

There is an additional notation, by task, of the estimated performance time, consortium member(s) responsible for the work of the task and the consortium member(s) housing the work of the task.

Working sheets displaying complete delineations of each of the major budget category totals for each event are available in draft form but were not included in this report pending final decisions and approval of the various consortium working groups during the month ahead.

Such supporting documents, together with revised budget projections spanning the first four and one-half years (beginning February 1971), will be supplied in detail in the December 18, 1970, Final Report of the project. Such a projected and supported display will illustrate the dramatic changes which will occur over time in the areas of development, evaluation and operation; responsibility; cost benefit; personnel and products prepared; and the practicality of assuming the successful continued operation of the training program following the termination of federal support.

This first budget, then, must be viewed as tentative. It reflects initial staffing and developmental, operational and evaluative activity costs which may appear excessive for the number of trainees to be enrolled in the first year's program. In our view, this type of firm foundational allocation is essential for the orderly subsequent operational growth of a program containing developed and evaluated procedures.

As a final explanatory note, the costs of basic maintenance of the training coordinating center could have been incorporated as a portion of each of the five major events. Rather than do so, the center's budget for its existence during the first eighteen months is displayed separately on the next page prior to Event 1. This should help to clarify true remaining costs by event and effectively differentiate between central and site/project locations. The source of funds for a particular task is yet to be determined.

Training Coordinating Center

(18 month budget)
February 1971 -- August 1972

TABLE 8

1. Personnel Compensation			
a. Salary and wages		$308,650	
1 training program director (annual base, $25,000)	$ 37,500		
2 assistant directors (annual base, $22,000)	66,000		
1 field assistant (annual base, $14,000)	21,000		
1 data processing specialist (base, $17,500)	25,750		
3 clerical (annual base $7,200)	32,400		
3 training specialists on retainer (10% of annual base $20,000.)	6,000		
15 project staff in training (trainees) (annual stipend of $8,000)-12 months estimated time	120,000		
b. Personnel benefits (10%)		30,865	
c. Consultant fees 3 training consultants for estimated 15 days each (45 days) @ 100.00 per day		4,500	
Total compensation		344,015	
2. Transportation and per diem			
a. Staff transportation (10¢ per mile) site visits; conference trips to Washington (2), etc.		5,000	
Staff per diem ($25.00 per full day)		2,000	
			7,000
b. (1) Consultant (3 training consultants) transportation (10¢ per mile) site visits		1,000	
Consultant per diem (425.00 per full day)		500	
(2) Governing council transportation (10¢ per mile) - 18 one-day meetings 200 miles, 8 members		2,880	
Consultant per diem ($10.00 per day)x8x18		1,440	
(3) USOE consultant panel (5 members) transportation - 4 two-day meetings @ $400 per trip x 5 members		8,000	
Consultant per diem (@ $25.00 per full day) 8 days x 4x5		1,000	
(4) IRAC (7 members) transportation - 18 one-day meetings - 1800 miles @ 10¢ per mile		180	
Consultant per diem ($10.00 per day)x18x7		1,260	
(5) Training specialists (3 members) transportation (10¢ mile)		1,000	
Consultant per diem ($25.00 per full day)		500	
			17,760
Total transportation and per diem			24,760
3. Rent and Utilities			
a. (1) 5 professional offices at 150 sq. ft. per person (750) sq. ft.) @ $5.00 per sq. ft. annually		5,625	
(2) 3 secretarial offices at 100 sq. ft. per person (300 sq. ft.) @ $5.00 per sq. ft. annually		3,250	
(3) 1 conference meeting space at 300 sq. ft. @ $5.00 per sq. ft. annually		3,250	

(4) Workroom space at 175 sq. ft. per 5 professionals @ $5.00 per sq. ft. annually	1,312	
(5) Filing/storage space at 175 sq. ft. per 5 professionals @ $5.00 per sq. ft. annually	1,312	
b. Utilities (included in rent)		
Total Rent and Utilities		14,749
4. Communications		
a. Telephone and telegraph		
(1) phone installation and basic rate for 5 professionals at $75.00 each annually	560	
(2) extension phone installation and basic rate for 3 secretaries at $25.00 each annually	113	
(3) long distance charges	2,000	
b. Postage ($200 per person annually) x 5	1,500	
Total Communications		4,173
5. Printing and Reproduction	1,000	
		1,000
6. Other Services		
a. Equipment rental projectors, tape recorders, etc.	800	
b. data processing	1,000	
Total Other Services		1,800
7. Supplies (office, program, library)	1,500	
		1,500
8. Equipment		
3 secretaries desks @ $226.00	678	
3 steno chairs @ $76.00	228	
5 desks @ $261.00	1,305	
5 executive chairs @ $120.00	600	
3 typewriters @ $468.00	1,404	
2 IBM Dictaphones @ $475.00	950	
2 IBM Transcribers @ $475.00	950	
5 files @ $72.00	360	
Miscellaneous accessories	500	
Total Equipment		6,975
9. Indirect costs (8%) of $398,972		31,918
TOTAL		$430,890

BUDGET - TABLE 9
EVENT I: TRAINEE RECRUITMENT

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Unassigned Total
DEVELOPMENT TASKS													
1.Brochure	2	TR	NWREL	*	*	**	*	*** $ 400	*** $ 600	**	**	*** $ 80	*** $ 1,080
2.Preliminary Interview Form	1	TR	TR	*(BALANCE) *** $ 1,400	*** $ 410	*	*	-0-	*** 100	*	-0-	*** 153	*** 2,063
3.Slide Tape	3	TR	NWREL	*(BALANCE) *** 1,000	*** 850	**	*	-0-	*** 550	*** 200	-0-	*** 208	*** 2,808
													($5,951)
CONTINUING TASKS													
1.Distribution of Brochure & Personnel Cont.)	8	TR	ALL	*	*	*	*	-0-	-0-	-0-	-0-	-0-	-0-
2.Initial Screening	2	TR	ALL	*	-0-	*	*	-0-	-0-	*	-0-	-0-	-0-
3.Initial Conf. (With Planning Time)	2	TR TR	TR	*	*(BALANCE) *** 758	*(BALANCE) *** 100	*	*	-0-	*	**	*** 69	*** 927
4.Follow-up Dossier Comp. on Trainee	2	TR	TR	*	*	*	*	-0-	-0-	*	*	-0-	-0-
5.Interim Selec. of Trainees & Alternates	2	ALL	NWREL	*	*	*	*	*	-0-	*	-0-	-0-	-0-
													($ 927)
TOTAL UNASSIGNED				$ 2,400	$ 2,018	$ 100	$ -0-	$ 400	$ 1,250	$ 200	$ -0-	$ 510	$ 6,878

These codes and notations are applicable to subsequent event budgets but are not duplicated again on succeeding pages.

Consortium Participants

PROGRAM:	Consortium Program Funds
NWREL:	Northwest Regional Educational Laboratory
OSDE:	Oregon State Department of Education
OSU:	Oregon State University
PPS:	Portland Public Schools
TR:	Teaching Research
UofO:	University of Oregon
UofW:	University of Washington
ALL:	All Consortium Members

* It is anticipated that this portion of the task and its cost will be performed and absorbed by the training coordinating center basic budget.

** It is anticipated that this cost will be donated by the consortium member designated as "location of work".

*** The source of support for this section of the task is yet to be assigned.

BUDGET - TABLE 10
EVENT II: THE INDUCTION PROCESS

(Screening of 25 Applicants to 15 Initial Trainees)

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Unassigned Total
DEVELOPMENT TASKS													
1.Competency Profile Instrument	6	TR	TR	*(BALANCE) *** $ 7,360	*	*	*	-0-	*	*	*	*** $ 589	*** $ 7,949
2.Field Survey to Derive Model Comp. Profile	10	TR	TR	*(BALANCE) *** 8,000	*(BALANCE) *** $ 400	*	*	-0-	-0-	*	-0-	*** 672	*** 9,072
3.Profile Validation	4	TR	TR	*(BALANCE) *** 2,000	*	*	*	*** $ 300	*** $ 5,750	*** $ 250	-0-	*** 664	*** 8,964
4.Slide/Tape Refinement	4	TR	NWREL	*(BALANCE) *** 1,000	-0-	**	-0-	-0-	*** 800	-0-	**	*** 144	*** 1,944
5.Instructional Materials For Training Staff	4	ALL	TR NWREL	*(BALANCE) *** 1,500	*** 350	*	*	*** 500	-0-	*** 650	-0-	*** 240	*** 3,240
6.Instructional Materials For Trainees	60	TR	TR	*(BALANCE) *** 50,000	*** 650	*	*** $ 500	-0-	-0-	*** 20,000	-0-	*** 5,692	*** 76,842
CONTINUING TASKS													(108,011)
1.Selection and Training of Training Staff	8	ALL	TR	*(BALANCE) *** 2,000	*(BALANCE) *** 600	*	*	*	-0-	*	-0-	*** 208	*** 2,808
2.Induction Process	1	TR	TR	*(BALANCE) *** 9,400	*(BALANCE) *** 4,840	*(BALANCE) *** 500	*	-0-	*** 500	*** 500	-0-	*** 1,259	*** 16,999
3.Trainee Selection	1	ALL	TR	*	*	*	*	-0-	-0-	*	-0-	-0-	(19,807) -0-
TOTAL Unassigned				$81,260	$ 6,840	$ 500	$ 500	$ 800	$ 7,050	$21,000	-0-	$ 9,468	$127,818

BUDGET - TABLE 11
EVENT III: THE TRIAL PROJECT(S)

TASKS	Initial Time In Weeks	Resp. For Work	Location of work	1 Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Unassigned Total
DEVELOPMENT TASKS													
1.Field Problems Seminar Development	3	TR	PPS	*(BALANCE) *** $ 3,625	*** $ 200	**	*	-0-	-0-	*** $ 500	-0-	*** $ 346	*** $ 4,671
2.Conference and Supervision Training Mat.	6	TR	TR	*(BALANCE) *** 3,000	*** 410	*	*	*** 200	*** 2,000	*** 300	-0-	*** 473	*** 6,383
													($11,054)
CONTINUING TASKS													
1.Selec.(or Crea.) Staff.& Plann.of the Trial Proj.	18	TR	NWREL PPS TR	*	*** 384	**	*** 500	-0-	*** 1,500	*** 600	-0-	*** 239	*** 3,223
2.Site Arrangements	10	TR	NWREL PPS TR	*(BALANCE) *** 600	*** 640	*	*** 500	-0-	*** 1,250	*** 300	-0-	*** 263	*** 3,553
3.Sche.Seminars, Conf.,Staff Meetings	1	TR	TR	*	-0-	*	-0-	-0-	-0-	*	-0-	-0-	-0-
4.Content Seminar Planning	4	TR	TR	*(BALANCE) *** 2,000	*(BALANCE) *** 500	*	*	-0-	*** 500	*** 500	-0-	*** 280	*** 3,780
5.Content Seminar Operation	5	TR	NWREL PPS TR	*(BALANCE) *** 6,000	*** 480	**	*	*** 200	*** 150	*	-0-	*** 546	*** 7,376
6.Field Problems Seminar Operation	5	TR	NWREL PPS TR	*(BALANCE) *** 2,500	*** 200	**	*	*** 200	*** 150	*	-0-	*** 244	*** 3,294
7.Conf./Supervision Training and Operation	6	TR	NWREL PPS TR	*(BALANCE) *** 7,650	-0-	**	*	-0-	-0-	*** 300	-0-	*** 636	*** 8,586
8.Assessing of Competence in Context	8	TR	NWREL PPS TR	*(BALANCE) *** 4,300	*** 216	**	*	-0-	*** 1,000	*** 1,000	-0-	*** 521	*** 7,037
9.Trial Project Operation*	5	TR	NWREL PPS TR	*(BALANCE) *** 30,000	*(BALANCE) *** 12,500	**	*	-0-	*** 500	*** 300	**	*** 3,464	*** $46,764
													($83,613)
TOTAL UNASSIGNED				$59,675	15,530	-0-	1,000	$600	$7,050	$3,800	-0-	$ 7,012	$94,667

*Figured on the basis of three trial projects and 15 trainees.

BUDGET - TABLE 12
EVENT IV: ACTUAL PROJECT ASSIGNMENT(S)

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Unassigned Total
DEVELOPMENT TASKS													
1.Procedure For Describing Proj.in Detail	4	TR	OSU TR	*	*	*	*	*** $ 100	-0-	*** $ 100	*	*** $ 16	*** $ 216
2.Maximum Fit - Computer Matching Program	4	TR	OSU	*	-0-	**	*	*	*** $ 500	*	-0-	*** 40	*** 540
3.Orientation Program For Each Site	3	TR	NWREL	*(BALANCE) *** $ 1,000	*** $ 275	**	*	-0-	*** 900	*** 300	-0-	*** 198	*** 2,673
4.Proj. Site Arrangements (Per Site)	2	TR	NWREL PPS TR	*	*	*	*	*	-0-	*	-0-	-0-	-0-
CONTINUING TASKS													($3,429)
1.Assembly of Detailed Info. on Each Tr. Proj.	6	TR	NWREL PPS TR	*	*	*	*	*	-0-	*	-0-	-0-	-0-
2.Matching of Trainees to Avail.Exper.	6	TR	TR	*	*	*	*	*	*** 700	-0-	-0-	*** 56	*** 756
3.Project Site Operation	48	ALL	NWREL PPS TR	*(BALANCE) *** $196,350	*(BALANCE) *** 11,250	**	* **	*	*** 1,000	* **	* **	*** 16,688	*** 225,288
TOTAL UNASSIGNED				$197,350	11,525	-0-	-0-	$ 100	$3,100	$ 400	-0-	$16,988	($226,044) $229,473

BUDGET - TABLE 13
EVENT V: TERMINATION PROCESS

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1. Personnel Comp.	2. Trans. & Per Diem	3. Rent & Utilities	4. Communications	5. Print. & Reproduct.	6. Other Services	7. Supplies	8. Equipment	9. Indirect Costs 8%	Unassigned Total
DEVELOPMENT TASKS													
1. Certification Standards (Program)	4	TR	TR	*	*	*	*	*** $ 330	-0-	*	-0-	*** $ 26	*** $ 356
2. Certification Standards (Academic)	8	TR	OSU UW; UO STATE D.	* **	*** $ 500	* **	* **	-0-	-0-	* **	-0-	*** 40	*** 540
													($896)
CONTINUING TASKS													
1. Job Market Survey	12	TR	STATE BOARD	* **	*	* **	*** $ 400	*	-0-	*** $ 50	* **	*** 36	*** 486
2. Placement of Certified Trainees	48	ALL	TR UW; OSU UO	* **	*** 500	*	*** $ 630	*** 150	-0-	*** 100	-0-	*** 110	*** 1,490
													($1,976)
TOTAL UNASSIGNED				*	$ 1,000	*	$ 1,030	$ 480	-0-	$ 150	-0-	$ 212	$ 2,874

TOTAL BUDGETS - FIRST DRAFT:

TRAINING COORDINATING CENTER	$ 430,690
EVENT I	6,878
EVENT II	127,818
EVENT III	94,669
EVENT IV	229,473
EVENT V	2,874
	$ 892,602*

*The final report of December 18, 1970 will reflect adjusted budget totals following review of Interim Governing Council and the Working Council.

BIBLIOGRAPHY

Baxter, B. (Chm.) Evaluative Research: Strategies and Methods. Symposium for Research, Washington, D. C. January 8-9, 1970

Bennis, W. C. and Slater, Philip E. The Temporary Society. New York: Harper and Row, 1968.

Bolster, Arthur S., Jr. Book Review of "The Teaching Hospital: Evolution and Contemporary Issues" by John H. Knowles, M. D. (Ed.) The Harvard Educational Review. 37 (2): 273-281; Spring 1967.

Buswell, Guy T., et al, Training for Educational Research. Cooperative Research Project No. 51074. Berkeley, California: Center for the Study of Higher Education, University of California, 1966.

Clark, David L. and Hopkins, John E. A Report on Educational Research, Development and Diffusion Manpower, 1964-1972. Bloomington, Indiana; Indiana University Research Foundation, 1969.

Crutchfield, R. S., and Covington, M. V. The Productive Thinking Program. Berkeley, California; Educational Innovation, 1969.

Fletcher, Jerry L. and Williamson, John N. The School as a Center for Educational Change. Portland, Oregon: The John Adams High School, 1969.

Gideonse, Hendrik D. Educational Research and Development in the United States. A report of the Bureau of Research, U. S. Office of Education, prepared for the Organization for Economic Cooperation and Development, 1969.

Griessman, B. E. "An Approach to Evaluating Comprehensive Social Projects." Educational Technology, 9: 16-19; February 1969.

Guba, E. G. and Stufflebeam, D. L. Strategies for the Institutionalization of the EIPP Evaluation Model. An address delivered at the Eleventh Annual Phi Delta Kappa Symposium on Educational Research. Columbus, Ohio: Ohio State University, Evaluation Center, June 1970.

Hayes, S. P., Jr. Evaluating Development Projects. Belgium, United Nations Educational Scientific and Cultural Organization, 1959.

Hemphill, J. K. "Dimensions of Executive Positions: A Study of the Basic Characteristics of the Positions of Ninety-Three Business Executives." Bureau of Business Research Monograph, Number 98, 1967.

Hopkins, John E. Proposed Objectives and Programs for the Office of Education Training Program. Second revision, 1969. (Mimeographed)

Horvat, J. J. "The Training of Educational Developers." Viewpoints, 46 (2): 61-68; March 1970.

Knowles, John H., M. D. (Ed.) The Teaching Hospital: Evolution and Comtemporary Issues. Cambridge, Massachusetts: Harvard University Press. 1966.

McIntosh, R. Gordon. A Comparative Study of Clinical Training. Unpublished Doctoral Dissertation, Harvard University. 1969.

Michael, W. B. A Critique of the Methodology of Evaluation in the Phi Delta Kappa Book on Evaluation. An address delivered at the Eleventh Annual Phi Delta Kappa Symposium on Educational Research. Columbus, Ohio: Ohio State University, Evaluation Center, June 1970.

Nelson, F. G. Models for Evaluation: An Introduction. Monmouth, Oregon: Teaching Research, 1970.

Owens, T. R. "Suggested Tasks and Roles of Evaluation Specialists in Education." Educational Technology. 8: 4-10, November 1968.

Parker, John L. Teacher Training at John Adams High School. 1969. (Mimeographed)

Paulson, C. F. A Strategy for Evaluation Design. Monmouth, Oregon: Teaching Research, 1970.

Paulson, C. F. Evaluation of Instructional Systems, Monmouth, Oregon: Teaching Research, 1969.

Provus, M. "Evaluation of Ongoing Programs in the Public School System." Educational Evaluation: New Roles, New Means. R. Tyler, (Ed.) Chicago: University of Chicago Press, 1969, 242-283.

Schalock, H. Del. A Competency Based, Field Centered, Personalized and Systematic Model for Elementary Teacher Education. Monmouth, Oregon: Oregon College of Education and Teaching Research, 1970.

Stake, R. E. "The Countenance of Educational Evaluation." Teachers' College Record. 68 (7): 523-540; 1967.

Stufflebeam, D. L. "An Introduction." Educational Evaluation and Decision Making. Columbus, Ohio: Ohio State University, Evaluation Center, June 1970.

Stufflebeam, D. L. Evaluation as Enlightenment for Decision-Making. Columbus, Ohio: Ohio State University, Evaluation Center, 1968.

Sundberg, Norman D. "Systematic Learning in Natural Settings." Unpublished Address to the Conference, Instructional Innovations in Undergraduate Instruction. Eugene, Oregon, July 24, 1969.

Twelker, P. A. "Designing Simulation Systems." Educational Technology, 9: 64-70; October 1969.

Wallen, John L. Charting the Decision Making Structure of an Organization. Program Report: Improving Teaching Competencies, Northwest Regional Educational Laboratory, Portland, Oregon, May 1970.

Weislogel, M. H., Johns, J. and Rigby, M. K. Procedures for Evaluating Research Personnel with a Performance Record of Critical Incidents. A report submitted to the American Institute for Research, June 1950.

APPENDIX A

COMPLETE ROLE DESCRIPTIONS OF PRIMARY STAFF OPERATING AT THE TRAINING COORDINATING CENTER AND THE OPERATING SITE/PROJECTS

Staffing and descriptive role profiles apply to the first eighteen months of operation (six months for the initial planning and development period and twelve months for the first operating year). Projected role and staff changes over four years will be displayed in the Final Report of December 18, 1970. However, in brief explanation, by the conclusion of the federal funding period (third operating year) roles and staff will have altered considerably. A gradual transfer of the training coordinating center will have occurred so that remaining centralized coordinating responsibilities will be performed at and by the university consortium members: Oregon State University, University of Oregon and University of Washington.

Note of explanation of terms used in role profile descriptions:

The functions performed at the training Coordinating center involve the development of procedures, the evaluation of those procedures and the operation of the procedures to perform a function.

A person "responsible for" has primary responsibility for assuring the completion of the procedures. A person who "executes" actually performs the procedure. A person who "participates" does not help execute or carry responsibility. "Participates in development" of procedures means providing inputs. "Participates in operation" means attending to or having access to an operational activity of the function. A person who "supports" assists in the execution by doing some or all of the work involved.

TRAINING COORDINATING CENTER*

Governing Council

NUMBER OF PERSONS: (Undetermined)

COMPENSATION: Travel and per diem

ROLE PROFILE: The Governing Council consists of one representative from each consortium member institution plus any additional persons the Council may elect to serve.

The Council meets periodically, serves as the policy-making body but also performs several roles related to function activities as indicated below:

1. Consortium Procedures: participates in development, and operation and is responsible for evaluation.
2. Site Selection/Termination Procedures: participates in development and evaluation and is responsible for operation.
3. Program Procedures: participates in development and operation and is responsible for evaluation.
4. Staff Selection/Termination Procedures: responsible for development and evaluation and supports operation.
5. Staff Training Procedures: participates in evaluation.
6. Trainee Monitoring and Termination Procedures: participates in development and is responsible for evaluation.
7. Fiscal Control: supports development and is responsible for evaluation.
8. Trainee Selection Procedures: supports development and operation and is responsible for evaluation.
9. Job Development Procedures: supports development and operation and participates in evaluation.
10. Provision of Credentials: responsible for development and evaluation and supports operation.
11. Public Relations and Dissemination Procedures: participates in development, is responsible for evaluation and supports operation.

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*Located at Teaching Research, Monmouth, Oregon

U. S. Office of Education Consultant Panel

NUMBER OF PERSONS: (Undetermined)

COMPENSATION: (Undetermined)

ROLE PROFILE: The U. S. Office of Education Consultant Panel is advisory to the Governing Council. It is anticipated that they will participate to a limited degree as indicated below:

1. Consortium Procedures: participates in evaluation.
2. Site Selection/Termination Procedures: participates in development, evaluation and operation.
3. Training Materials for Staff and Trainees: participates in development.
4. Program Procedures: participates in development.
5. Trainee Monitoring and Termination Procedures: participates in development and evaluation.
6. Fiscal Control: participates in development and evaluation.
7. Trainee Selection Procedures: participates in development and evaluation.
8. Job Development Procedures: participates in development, evaluation and operation.
9. Public Relations and Dissemination Procedures: participates in development and evaluation and supports operation.

Training Program Director

NUMBER OF PERSONS: One

COMPENSATION: $25,000 annual salary plus travel and per diem.

ROLE PROFILE: The Training Program Director is the executive officer for the program and has overall responsibility for coordinating and directing program development, evaluation and operation.

In addition to this responsibility, the Training Program Director will pay specific attention to selected functions listed below:

1. Consortium Procedures: responsible for and executes development and operation; executes evaluation.
2. Site Selection/Termination Procedures: responsible for and executes both development and evaluation; executes operation.

3. Training Project Selection/Termination Procedures: responsible for and executes development; is responsible for both evaluation and operation.

4. Training Materials for Staff and Trainees: responsible for and executes development; is responsible for evaluation.

5. Program Procedures: responsible for and executes development and operation; executes evaluation.

6. Staff Selection/Termination Procedures: executes development and evaluation; is responsible for and executes operation.

7. Staff Training Procedures: responsible for and executes both development and evaluation; supports operation.

8. Traineeships Scheduling: responsible for evaluation.

9. Job Development Procedures: responsible for evaluation; supports operation.

10. Provision of Credentials: supports operation.

11. Public Relations and Dissemination Procedures: participates in development; supports operation.

Training Program Assistant Director For External Field Relationships

NUMBER OF PERSONS:	One
COMPENSATION:	$22,000 annual salary plus travel and per diem
ROLE PROFILE:	The Assistant Director for External Field Relationships is responsible to the Director. His primary tasks include selection and induction of trainees, job development procedures, provision of credentials and public relations and dissemination.

Specifically, the Assistant Director for External Field Relationships will play the following development, evaluation and operation roles for the functions listed below:

1. Site Selection/Termination Procedures: supports development, evaluation and operation.

2. Program Procedures: participates in development; supports operation.

3. Trainee Monitoring and Termination Procedures: participates in evaluation and operation.

4. Matching Trainees to Known Job Openings: participates in evaluation.

5. Fiscal Control: participates in development and evaluation; supports operation.

6. Clerical/Technical Services: participates in development and evaluation.

7. Trainee Selection Procedures: responsible for and executes development and operation; executes evaluation.

8. Trainee Induction Procedures: responsible for and executes both development and evaluation; is responsible for operation.

9. Job Development Procedures: responsible for and executes evaluation; is responsible for operation.

10. Provision of Credentials: executes development and evaluation; is responsible for and executes operation.

11. Public Relation and Dissemination Procedures: responsible for and executes development, executes evaluation and is responsible for and executes operation.

Training Program Assistant Director For Monitoring and Fiscal Affairs

NUMBER OF PERSONS:	One
COMPENSATION:	$22,000 annual salary plus travel and per diem
ROLE PROFILE:	The Assistant Director for Monitoring and Fiscal Affairs is responsible to the Director. His primary tasks include monitoring (program, staff, site, prospect and trainees). Scheduling, matching trainees to job placement, accounting and supervision of the clerical and technical staff.

Specifically, the Assistant Director for Monitoring and Fiscal Affairs will play the following development, evaluation and operation roles for the functions listed below:

1. Consortium Procedures: participates in development and evaluation efforts.

2. Site Selection/Termination Procedures: participates in the evaluation effort.

3. Training Project Selection/Termination Procedures: participates in development and executes evaluation.

4. Training Materials for Staff and Trainees: executes evaluation.

5. Program Procedures: participates in development; supports the evaluation and operation efforts.

6. Staff Selection/Termination Procedures: supports development, evaluation and operation efforts.

7. Staff Training Procedures: supports evaluation.

8. Trainee Monitoring and Termination Procedures: responsible for development and operation; executes evaluation.

9. Traineeship Scheduling: responsible for development and operation; executes evaluation.

10. Matching Trainees to Known Job Openings: responsible for development and operation; responsible for and executes evaluation.

11. Fiscal Control: responsible for and executes operation.

12. Clerical/Technical Services: responsible for and executes development and evaluation; is responsible for operation.

Field Assistant

NUMBER OF PERSONS: One

COMPENSATION: $14,000 annual salary plus travel and per diem

ROLE PROFILE: Responsible to staff member and to the Assistant Director for External Field Relationships. The Field Assistant will primarily play the following development, evaluation and operation roles for the functions listed below:

1. Site Selection/Termination Procedures: participates in development and evaluation; supports the operation.

2. Program Procedures: participates in development and supports operation.

3. Trainee Monitoring and Termination Procedures: participates in evaluation and operation.

4. Matching Trainees to Known Job Openings: participates in evaluation.

5. Trainee Selection Procedures: supports development, evaluation and operation.

6. Trainee Induction Procedures: supports evaluation.

7. Job Development Procedures: supports development and evaluation; executes operation.

8. Provision of Credentials: supports development and evaluation.

9. Public Relations and Dissemination Procedures: supports development, evaluation and operation.

Data Processing Specialist

NUMBER OF PERSONS: One

COMPENSATION: $17,500 annual salary plus travel and per diem

ROLE PROFILE: Staff member responsible to the Assistant Director for Monitoring and Fiscal Affairs.

Role requirements will include all data processing needed in development, evaluation or operation as indicated by function listed below:

1. Consortium Procedures: supports the evaluation effort.

2. Site Selection/Termination Procedures: supports the evaluation effort.

3. Training Project Selection/Termination: supports the evaluation effort.

4. Training Materials for Staff and Trainees: supports the evaluation effort.

5. Program Procedures: supports the evaluation and operation efforts.

6. Staff Selection/Termination Procedures: supports the evaluation effort.

7. Staff Training Procedures: supports the evaluation effort.

8. Trainee Monitoring and Termination Procedures: supports the development, evaluation and operation efforts.

9. Traineeship Scheduling: executes the development and operation efforts.

10. Matching Trainees to Known Job Openings: executes the development and operation efforts.

11. Fiscal Control: participates in the development effort; supports the evaluation and operation efforts.

12. Clerical/Technical Services: supports the evaluation effort.

13. Trainee Selection Procedures: supports the evaluation effort.

14. Trainee Induction Procedures: supports the evaluation effort.

15. Job Development Procedures: supports the evaluation effort.

Training Program Clerical/Technical
Support Personnel

NUMBER OF PERSONS:	Three
COMPENSATION:	$7,200 annual salary each ($21,600 total)
ROLE PROFILE:	The clerical staff is supervised by the Assistant Director for each function and for the Clerical/Technical Services functions. They participate in both development and evaluation and, of course, execute operation.

Internal Review and Advisory Committee (IRAC)

NUMBER OF PERSONS:	Twelve (tentative)
COMPENSATION:	Travel and per diem
ROLE PROFILE:	The Internal Review and Advisory Committee (IRAC) is composed of each site coordinator, each project director and one trainee from each site. The primary purpose of IRAC is to periodically serve as an advisory body to the training coordinating center staff. Their anticipated specific participation and support roles are indicated by function:

1. Consortium Procedures: participates in development.
2. Site Selection/Termination Procedures: participates in development and operation.
3. Training Project Selection/Termination Procedures: participates in development, evaluation and operation.
4. Training Materials for Staff and Trainees: participates in development, evaluation and operation.
5. Program Procedures: participates in development and evaluation.
6. Staff Selection/Termination Procedures: participates in development and evaluation.
7. Staff Training Procedures: participates in both development and evaluation; supports operation.
8. Trainee Monitoring and Termination Procedures: participates in development and evaluation.
9. Traineeships Scheduling: participates in development and supports evaluation.

10. Matching Trainees to Known Job Openings: supports evaluation.

11. Clerical/Technical Services: participates in evaluation.

12. Trainee Selection Procedures: participates in evaluation.

13. Trainee Induction Procedures: participates in both development and evaluation; supports operation.

14. Job Development Procedures: participates in evaluation.

Training Consultants

NUMBER OF PERSONS: (Undetermined)

COMPENSATION: $100 per day plus travel and per diem

ROLE PROFILE: The occasional utilization of consultant expertise will be required on a per-day basis in at least four function categories:

1. Training Materials for Staff and Trainees: support development and operation.

2. Program Procedures: participates in and supports operation.

3. Staff Training Procedures: participates in evaluation and supports operation.

4. Clerical/Technical Services: participates in development and evaluation.

These persons also may be utilized on call from Site Coordinators.

Training Specialists

NUMBER OF PERSONS: (Undetermined)

COMPENSATION: Retainer fee to be negotiated

ROLE PROFILE: The periodic utilization of specialist skills will be required on a retainer basis in at least four function categories:

1. Training Materials for Staff and Trainees: supports development and operation.

2. Program Procedures: participates in and supports operation.

3. Staff Training Procedures: participates in evaluation; supports operation.

4. Clerical/Technical Services: participates in development and evaluation.

These persons also may be utilized on call from Site Coordinators.

Training Site Coordinators*

NUMBER OF PERSONS: Three

COMPENSATION: $20,000 annual salary each ($60,000 total) plus travel and per diem

ROLE PROFILE: The Training Site Coordinator's unique contribution at the program coordinating center is described below:

1. Training Project Selection/Termination Procedures: supports development and evaluation; executes operation.
2. Training Materials for Staff and Trainees: supports development; is responsible for and executes operation.
3. Program Procedures: executes operation.
4. Staff Selection/Termination Procedures: supports development and operation; participates in evaluation.
5. Staff Training Procedures: executes development; supports evaluation; is responsible for and executes operation.
6. Training Monitoring and Termination Procedures: participates in evaluation; executes development and operation.
7. Traineeships Scheduling: participates in evaluation.
8. Matching Trainees to Known Job Openings: participates in evaluation.
9. Fiscal Control: supports operation.
10. Clerical/Technical Services: participates in development and evaluation.
11. Trainee Selection Procedures: participates in development and evaluation.

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*The Training Site Coordinator is the direct linkage agent between the Training Coordinating Center and the Operating Site/Projects. Therefore, his function at the Training Coordinating Center is displayed here and his function at the Training Site/Projects is displayed in that section.

12. Trainee Induction Procedures: supports development and evaluation; executes operation.

13. Job Development Procedures: participates in operation.

14. Provision of Credentials: supports operation.

15. Public Relations and Dissemination Procedures: participates in operation.

SITE/PROJECT CENTERS*

Training Site Coordinator

NUMBER OF PERSONS:	Three (One per site)
COMPENSATION:	$20,000 annual salary plus travel and per diem ($60,000)
ROLE PROFILE:	The training Site Coordinator serves as the primary agent between the operating site and the training coordinating center. He has specific role functions to perform at the training coordinating center (described previously) and at the training site level.

Specifically, his role in development, evaluation and operation activities within training site functions are described below:

1. Trainee Monitoring: responsible for development and evaluation.

2. Trainee Instructional Materials (nonseminar): responsible for evaluation.

3. Trainee Content Seminar: responsible for development, evaluation and operation; executes evaluation and operation.

4. Trainee Field Problems Seminar: responsible for development, evaluation and operation; executes evaluation and operation.

5. Trainee Supervision/Tutorial: responsible for evaluation.

6. Staff Training: responsible for development, evaluation and operation; executes evaluation and operation.

7. Clerical/Technical Support: responsible for and executes development and evaluation.

8. Other Trainee Instructional Experiences: responsible for evaluation.

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*Three sites and two projects per site to be selected.

Training Site Instructional Support Personnel

NUMBER OF PERSONS: Three (One per site)

COMPENSATION: $17,000 annual salary plus travel and per diem ($51,000)

ROLE PROFILE: During the federal funding period, this person will be depended upon heavily for contributions at the site level in the areas of development and evaluation.

1. Training Instructional Materials (nonseminar): responsible for development and operation; executes development, evaluation and operation.
2. Trainee Content Seminar: executes development; supports evaluation and operation.
3. Trainee Field Problems Seminar: executes development; supports evaluation and operation.
4. Trainee Supervision/Tutorial: executes development; supports evaluation and operation.
5. Staff Training: executes development; supports evaluation and operation.
6. Clerical/Technical Support: responsible for operation.
7. Other Trainee Instructional Experiences: responsible for development and operation; executes development, evaluation and operation.

Training Site Clerical/Technical Support Personnel

NUMBER OF PERSONS: Six (three FTE) or two (one FTE) at each site

COMPENSATION: $3,000 annual salary per person or $6,000 per site ($18,000)

ROLE PROFILE: One FTE per site is required to function in a support role for development, evaluation and operation of all functions. Of course, in the Clerical/Technical Support function they will participate in evaluation and execute operation.

Training Project Director
(Two Projects Per Site)

NUMBER OF PERSONS: Six (.1 FTE each) or two (.1 FTE each) at each site

COMPENSATION: $2,000 annual salary per person ($12,000)

ROLE PROFILE: The Project Director is directly involved in certain activities connected with the training program. Specifically, by function:

1. Trainee Monitoring: participates in development and operation.

2. Trainee Instructional Materials (nonseminar): participates in evaluation and operation.

3. Trainee Content Seminar: participates in development, evaluation and operation; supports evaluation.

4. Trainee Field Problems Seminar: participates in development, evaluation and operation; supports operation.

5. Trainee Supervision/Tutorial: participates in development and evaluation; supports operation.

6. Staff Training: participates in development, evaluation and operation.

7. Clerical/Technical Support: participates in development and operation.

8. Other Trainee Instructional Experiences: participates in evaluation.

Training Project Staff/Trainers
(Two Projects Per Site)

NUMBER OF PERSONS: Six (three FTE) or one (.5 FTE) per project and two (one FTE) per site

COMPENSATION: $7,500 annual salary per person or $15,000 per site ($45,000)

ROLE PROFILE: Staff/Trainers will have a direct, day-by-day relationship with trainees (five per site, Year One).

Specifically, by function:

1. Trainee Monitoring: executes development, evaluation and operation; is responsible for operation.

2. Trainee Instructional Materials (nonseminar): participates in development, evaluation and operation.

3. Trainee Content Seminar: participates in development, evaluation and operation; supports operation.

4. Trainee Field Problems Seminar: participates in development, evaluation and operation; supports operation.

5. Trainee Supervision/Tutorial: responsible for development and operation; executes evaluation and operation.

6. Staff Training: participates in development, evaluation and operation.

7. Clerical/Technical Support: participates in development and evaluation.

8. Other Trainee Instructional Experiences: participates in development and evaluation.

Training Project Staff - Nontrainers
(Two Projects Per Site)

NUMBER OF PERSONS:	Undetermined
COMPENSATION:	None
ROLE PROFILE:	Project team members not directly involved in the training program but project task oriented. These persons may elect to participate in the following activities within functions:

1. Trainee Instructional Materials (nonseminar): participates in operation (utilize materials).

2. Trainee Content Seminar: participates in operation (attend).

3. Trainee Field Problems Seminar: participates in operation (attend).

4. Trainee Field Problems Seminar: participates in development, evaluation and operation.

5. Clerical/Technical Support: participates in evaluation.

Training Project Trainees
(Staff Members in Training)

NUMBER OF PERSONS:	Fifteen (five per site; two or three per project)
COMPENSATION:	$8,000 annual stipend or $40,000 per site ($120,000) plus relocation expense, travel and per diem.
ROLE PROFILE:	Trainees participate in all activities within functions with the exception of staff training operation clerical/technical support development and operation. Trainees also share in the execution of trainee instructional materials (nonseminar).

APPENDIX B

THE RATIONALE FOR THE CONSORTIUM

The long-range purpose of this effort is to design new patterns for training RDD&E personnel in education, which will (1) provide more RDD&E personnel in education; (2) provide better trained RDD&E personnel in education; (3) provide personnel trained with much wider ranges and level of RDD&E competencies; and (4) become permanent training programs after the withdrawal of federal support.

The present consortium represents only three institutions (OSU, U of O, U of W) with the legal responsibility to maintain long-range formalized training programs as a primary emphasis.

The properties of the training model under design give sufficient promise of satisfying the intent of the funding agency to justify implementation.

1. An orientation to demonstrable competencies in actual work settings as the highest instructional priority
2. A focus on the project as a training setting
3. An emphasis on learning and instruction at project sites, from the very start of training
4. A commitment to negotiation and individualization with respect to procedures, materials and selections of subsets and sequences of tasks

The university members of the consortium are already heavily involved in field-oriented training programs in other areas of competence (principally teacher and administrator training) and regard this design as an extension of a direction in which they are already moving.

While not all worthwhile training programs can be or need be legitimized by a university, particularly short-term programs to develop specialized skills, the intent of this training program--the training of highly skilled generalists in development and evaluation for education--is worthy of university legitimizing and needs-training staff primarily available through universities, though reinforced by the special competencies of the staff of the training sites.

Proposals

It is proposed the consortium be established to implement and fully develop the training program as a model for training RDD&E personnel.

It is further proposed steps be taken from the onset of the federally sponsored period to establish the three universities as the future coordinators of the program for this consortium.

It is further proposed the specific roles for the other members of the consortium be developed with the goal in mind that by June 1973 the training programs will be fully operational from the three campuses. After this time the continued involvement of the nonuniversity members should be similar to that during the federally sponsored period, providing:

1. Training sites and training projects
2. Training staff
3. Materials development
4. Continued field-referenced influence on the training program to insure its continued relevance

In particular, it is proposed the field-based training centers be established during the federally sponsored period so they might be maintained as training centers after that period of federal sponsorship.

It is further proposed a reasonable schedule for phasing in the training system, from its initial protected implementation in a few institutions and for a restricted set of outcomes to its eventual implementation in the universities and a full set of potential employer field institutions, be established for the three-year period of full federal funding.

In view of the preceding statements, and given its staff competencies, historic interest in the development of this kind of training model, and the consistency of this kind of activity with the mission for which it was originally created as part of the state system of higher education, it is proposed that Teaching Research be identified as the grant recipient and assume responsibilities for coordinating the consortium activities during the period of federal sponsorship.

At the conclusion of the federal funding, the question will be reviewed of whether the universities shall continue to act through the mechanism of a formal consortium or merely cooperate with regard to the training programs and the nonuniversity training sites. A decision will be reached in terms of experience gained during the life of the project.

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FINAL REPORT
Project No. 0-9037
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U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
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Description of the Training Program
(Volume 2 of 4)

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/ DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

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December 18, 1970

U. S. Department of
Health, Education, and Welfare
Office of Education
Research Training Branch
National Center for Educational Research and Development

SP005526

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BRIEFING SUMMARY

New Design For Training

Prime contractor for operational phase: Teaching Research

Project director for operational phase: Dr. Jerry L. Fletcher

Principal Participants In Operational Phase

Institutions	Individuals
Teaching Research	Dr. James Beaird Dr. F. Leon Paulson Dr. Michael G. Saslow Dr. Lloyd D. Urbach
Northwest Regional Educational Laboratory	Dr. Lawrence D. Fish Mr. C. Edward Tyler
Oregon State University	Dr. Keith Goldhammer, Dean Dr. Edwin L. Anderson Dr. Gerald L. Becker Dr. Wayne Courtney
Oregon Board of Education	Dr. William Loomis
Portland Public Schools	Dr. Victor Doherty
University of Oregon	Dr. Robert C. Gilberts, Dean Dr. Gregory Maltby
University of Washington	Dr. Frederick Giles, Dean Dr. Richard Lee Andrews Dr. Cecil Clark Dr. Ambrose A. Clegg Dr. Robert G. Cope Dr. Thomas C. Lovitt Dr. Percy B. Peckham Dr. Gilbert Sax

Major Manpower Needs Being Addressed

The proposed training program is for educational development and educational evaluation personnel. They will be trained both as generalists and as specialists, with primary emphasis on the training of generalists. Trainees will receive credit toward masters degrees and will be expected, on exit from the program, to be capable of independent judgment and direction of projects in field settings.

Unique Features of the Rationale, Content, and Process of the Proposed Design

The proposed training program regards the project as the principal change mechanism in education, and focuses on preparing trainees to work as part of project teams. Trainees are placed on the staff of special training projects, are required to perform actual tasks in those projects, and receive instruction and training related to the performance of those tasks.

The proposed design combines field-centered training, competency-based or performance-based assessment and systematic instruction. This is accomplished through the establishment of special field training sites. Each site contains a group of trainees, university staff to run the training program, instructional support, and a set of training projects.

The trainee is guided through the program by an individually negotiated Competency Profile toward which he is working, and project assignments for the trainee are selected to promote his development toward his desired competency profile. The systematic instruction portion of the program is directly related to the performance of tasks in the ongoing project contexts. The training program is also linked directly to job opportunities in institutions employing educational developers and evaluators.

PREFACE

The training program design described in this report has been developed in fulfillment of a request by the Division of Higher Education Research of the National Center for Educational Research and Development to develop an operational model specifying new training patterns for preparing research, development, demonstration/dissemination and evaluation personnel in education.

Those participating in the design are:

Core Design Group

Dr. Jerry L. Fletcher (Director)
Dr. Gerald L. Becker
Dr. Michael G. Saslow
Mr. John N. Williamson
Mr. Edward Tyler
Dr. F. Leon Paulson

Working Council

Dr. Dale Bolton
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Dr. Victor Doherty
Dr. George Ingebo
Dr. Robert Clemmer
Dr. Edward Seger
Dr. John Parker
Dr. Allen Dobbins
Dr. H. Del Schalock
Dr. James Beaird

Interim Governing Council (Consortium Institutions)

Dr. James Beaird - Director, Teaching Research
Dr. Victor Doherty - Assistant Superintendent, Portland Public Schools
Dr. Lawrence Fish - Director, Northwest Regional Educational Laboratory
Dr. Robert Gilberts - Dean, College of Education, University of Oregon
Dr. Frederick Giles - Dean, College of Education, University of Washington
Dr. Keith Goldhammer - Dean, School of Education, Oregon State University
Dr. William Loomis - Oregon Board of Education

RATIONALE

The staff of the project has taken the position that a relevant, innovative program for training the educational problem-solving professionals of the future must be directed not only to meeting the increasing supply needs for technically trained research, development, demonstration/dissemination, and evaluation personnel (see Buswell, et al, 1966; Clark E. Hopkins, 1969) but also must anticipate and be appropriate for the radically changing institutional, intellectual and educational problem-solving needs of the future. Four aspects of change have particularly influenced the design of the proposed training model: the shifting nature of the educational problem-solving process; the new character of the institutional roles which educational research, development, demonstration/dissemination, and evaluation (RDD&E) personnel will be assuming; the changing role of the universities in professional training; and the increasing cost of advanced technical training.

Any serious program for training educational RDD&E personnel must take cognizance of the fact the entire process of educational problem solving has fundamentally changed over the last twenty years. Significant educational problem solving is being accomplished increasingly through "Temporary Systems"* established and organized to draw together and coordinate the optimal resources required to solve a particular problem in a specific period of time. Major task forces such as the School Mathematics Study Group and Physical Science Study Committee curriculum development programs are exemplary early cases of this trend. Indeed, the working group of this project represented four different institutions and a six-month commitment; this is itself representative of this trend. The project, a temporary collaboration of personnel and institutional resources to solve a problem, has definitely become the principal problem-solving mechanism for changing educational practice in our society. Furthermore, significant projects are becoming increasingly complex and interdisciplinary, involving the collaboration of multiple personnel with a variety of competencies, and the coordination of multiple institutional resources. Such a development has already begun to have a massive impact upon educational problem-solving institutions, the professional roles of educational RDD&E personnel, and the nature of the knowledge, skills and attitudes required to function successfully in those roles.

The project structure is playing a major role in making obsolete the traditional bureaucratic organizational forms that have heretofore dominated educational problem-solving institutions. Rather than preparing people to assume particular roles within a relatively stable institutional environment, preparation for the educational problem-solving professions today must be geared toward role flexibility. Emphasis must not be placed solely upon a given institutional position but rather upon one's individual skills with respect to the problem at hand. The reality of the situation today is that on one project a given individual might be a staff specialist working in a consulting position with respect to the main thrust of the project. On the next project he might have responsibility for a particular phase of the development and on a third project he might be the project director, responsible for coordinating and supervising all aspects of the project. Such required role flexibility has begun to extend not only among roles within a particular institutional setting but also across institutions as the establishment of working consortia and the outside contracting of problem-solving tasks become increasingly common practice in education. Clearly, the traditional technical and classroom dominated education that has characterized the preparation of educational problem-solving personnel in the past is not sufficient as preparation for individuals who must cope with a professional life of change. In addition to the knowledge and technical skills of their profession, prospective educational RDD&E personnel must be trained to assume a variety of professional roles, to function effectively in short-term, intense interpersonal and group situations, and to coordinate their skills with the needs and abilities of others.

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*Bennis, W. G. and Philip E. Slater. The Temporary Society. New York: Harper and Row, 1968. In this book, Bennis and Slater argue that the trend toward the establishment of temporary systems is a general one in our society and will replace the rigid, bureaucratic structure as the dominant organizational form of social institutions.

Related to the observations above is the fact that it is no longer appropriate to recognize the universities as the only viable centers of advanced professional training. There are numerous university programs, for example, that already recognize the validity of formal internships with government and private or public research centers. Furthermore, as universities become increasingly oriented toward mass education, there are serious signs that they are becoming unmanageable as far as the demands of advanced specialized training are concerned. We are already seeing the breakup, at the professional level, of many of the great European universities with advanced training being taken over by smaller specialized institutes. There are initial signs of a similar breakup in this country. Several universities, for example, have already begun not to demand a residency requirement. New patterns in training must be developed involving systematic consortia arrangements that can begin to deal effectively with this eventuality.

Another critical implication of this analysis is the short-term obsolescence of formal, technical training. It is not unusual today to find much of a person's professional RDD&E training virtually obsolete before he even begins to make a significant contribution professionally. The timeless cliché of a "life of learning" is today a functional necessity. But as formal education becomes increasingly costly, training programs will have to rethink the notion that advanced professional training must necessarily take the trainee out of productive work and into a classroom setting where the burden of training is being borne by society. Education must seriously develop modes of advanced training that are at the same time socially productive. We must find methods to institutionally operationalize continual learning. Work itself must become educative in a formal sense, and become the focus for systematic and continual self-renewal and professional growth.

The design of the particular training program proposed here is derived directly from the implications of the discussion above. Since the project is becoming the principal problem-solving unit in our society, this program concentrates on training individuals to work in projects. Since projects require flexible, adaptable individuals capable of shifting roles rapidly, this program concentrates on providing such capability. Since advanced training is becoming obsolescent at an increasing rate, forcing individuals to continuously learn, this program concentrates on providing mechanisms for continuous learning in actual work, or project, settings. And finally, since society must maintain and improve standards of training and provide recognized credentials to successful trainees, this program concentrates on increasing the capability of universities to develop and maintain such programs.

THE THEORETICAL FRAMEWORK
OF THE TRAINING PROGRAM

The training program described in this document is an attempt to integrate several major approaches to training. In most cases these approaches have their own theoretical bases. There is sufficient support for these approaches to training to justify their inclusion as components of the theoretical framework of this training program design. In this section we will describe these theoretical approaches in general, and then discuss the particular form in which each theoretical approach is found in this training design.

Field-Centered Training

In its broadest sense field-centered training implies the performance of real tasks by trainees in an operational work setting, under at least some kind of supervision. The face validity of field training is substantial. Virtually every professional training program now in existence includes some supervised experience in an actual work setting. There is a large body of literature which indicates that supervised field experiences are essential before a professional can effectively practice his profession, regardless of the extent of formal training. However, in almost no case have the hypotheses supporting field-centered training been carefully tested.*

The variety of kinds of field-centered training programs is enormous. However, all of them tend to have common problems. One of the major problems has been the individual nature of each field placement. If every field site is largely unique, training individuals to do the work of a particular site could be very narrow and limiting. What is needed for an effective field training program is some evidence that the field placement has some characteristics which are generalizable across institutions and settings. A second major problem with field-centered programs has been providing high quality and systematic supervision for the trainee in the field context. There is usually recognition that experience is not enough. Any quality educational experience must forge some kind of intimate interaction between experience and reflection. The ability to learn from an operational setting, to develop generalizations and insights, is not something which usually happens naturally. Such reflection must be encouraged systematically through the coordination of formal instruction with the field experience and through careful supervision. In spite of the general recognition of need, the provision and management of quality supervision has been a major stumbling block of field training. A third major problem has been the tendency of the field placement organization to exploit the trainee, to use him where it suits the organization best, regardless of the needs of the trainee.

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*The principal educational arguments for field-centered training have been summarized in "Systematic Learning in Natural Settings" by Norman D. Sundberg, unpublished address to the conference "Instructional Innovations in Undergraduate Instruction," Eugene, Oregon, July 24, 1969.

It is an underlying assumption of the training design proposed here that the project, as a sociological entity, has a great deal of generalizability across institutions and educational problems, and that the experience of being trained in a few projects provides the basis for competent performance in a wide variety of educational projects across a wide variety of institutional settings. In other words, project-based training overcomes the problem of field training being limited to a situation or site. While this view must remain an assumption initially, a major effort will be made to generate valid and reliable data on the degree to which there are characteristics of a project which are, in fact, independent of a particular site. Furthermore, at least two other studies are presently underway which will yield data on this question (Gagne, 1970; and Schalock, 1970). The funding of these studies implies at least some support for the assumption.

Secondly, this training program proposes to solve the problems of supervision and trainee exploitation in field-centered training by creating special training sites, in which a number of trainees are concentrated, and in which training projects (projects with trainees on the staff) operate side by side with other non-training projects at that site. Sufficient competence will be present at the training site to carry on a formal instructional program of seminars and individual work, as well as supervision. Procedures, and working relationships among the various personnel at the site, will be established to guarantee effective supervision, and to protect the trainee from exploitation.

Many institutions involved in field-centered training are attempting to cluster trainees for better supervision; to train their own supervisors as well as the field institution's staff in the techniques of supervision and training; and to provide linkage seminars or other instructional devices which enable and indeed force the trainee to reflect on his experiences in the field. This design proposes to move the supervisors and the seminars to the field site, creating, thus, a special field site.

Clinical Training

The basic concept of clinical training is that there exist work situations which are natural learning environments; that is, field contexts which as part of their normal function provide a strong impetus for the continual advancement and learning of every person in that context.

To make use of these situations in training, the approach must be either to identify such natural learning contexts and place trainees in them, or to identify the components which give rise to a natural learning context and attempt to integrate them into a particular field site so that that site becomes a clinical training environment.

The project focus of this training design was selected largely because of the belief that by systematically imbedding the critical elements of the clinical training environment into a project, projects can become clinical training contexts. The model of training proposed here views the project not only as the context for which individuals will be trained, but also the principal context within which the training will take place. The critical elements are many of those described in this section.

The conceptual groundwork for such a model of training and for the belief that clinical contexts can be created is derived largely from the model of medical training in the teaching hospital (Knowles, 1966) and some preliminary related thinking with respect to teacher training in education (Bolster, 1967; McIntosh, 1969; Fletcher and Williamson, 1969; Schalock, 1969). However, the capacity to perform this task is an extension beyond anything presently in existence and must remain as a direction toward which the training program will be working.

Systematic Instruction

Systematic instruction must be provided. It is essential that there be some mechanisms to provide the prerequisite skills necessary for the completion of any particular field task, as well as support trainees' reflecting upon their field experiences and generalizing beyond those experiences. The problem is to link the systematic instructional program closely enough to the field experiences to enable it to perform these functions.

The proposed training design is based on the assumption that the best way to provide systematic instruction at the appropriate time to either support a trainee in performing a particular task or enable a trainee to generalize beyond any particular experience is to assemble the expertise, the materials, and the support for systematic instruction at the project, or work setting. As previously mentioned the training design calls for the establishment of special training projects and for grouping these projects in special field sites which are then staffed and supported to the level necessary to provide systematic instruction, and to coordinate and integrate that systematic instruction with the field experiences of the trainees.

Personalized Training

To personalize a program is to make it maximally flexible in terms of what it permits a trainee to set out to do, how it permits him to do it and how often it permits him to change his mind about what he wants to do.

Given the obvious fact that all trainees will be different, that they will have different goals, and that they will learn in different ways at different rates, an effective training program must provide a reasonable procedure for accommodating individual differences.

In the proposed training design, the full-range of professional competencies have been specified, organized and systematized in a comprehensive grid. It is far beyond anyone to perform all of the tasks at a high level of competence. However, each individual trainee will have his entering competencies assessed on the full-range of skills and competencies and then will negotiate with a program staff member a proposed competency profile which will satisfy the trainee, the training program and criteria-of-fit to job opportunities in the field. Trainees will be able regularly to redefine and alter the proposed profile toward which they are working. Trainees will be given tasks to perform which require that they learn the various skills and competencies they have selected. A variety of techniques and approaches to learning these skills and competencies will always be available.

Competency Based Training

Competence is defined as the ability of a person to perform those tasks for which they will be held responsible as professionals once they hold an actual job. There are few higher order instructional objectives for a training program than the demonstrated capability to perform a particular task under actual work conditions.

In this program each of the skills and competencies identified will be tied to an activity or to the production of a particular product in a field setting, and these products or activities will have specified criteria for judgments of adequacy of performance. The staff at the training sites who run the instructional program are also those who will apply the criteria for judgment of the adequacy or inadequacy of the performance of a particular task.

Data Dependency

Simply stated, a data dependent program is one where, insofar as possible, decisions are made on the basis of systematic data, carefully collected and properly interpreted. Very few training programs are designed so that even such basic decisions as those concerning goals and teaching strategies are based on carefully and systematically collected data.

In the proposed design the competency profiles provide a careful documentation of a trainee's incoming competencies and the exit competencies toward which he is working. Each new competence is assessed separately and recorded; decisions as to which tasks the trainee will be given to develop needed competencies will be made based on the continuously updated profile of that trainee. A wide variety of formative evaluation procedures continuously document the status of a number of variables which might affect the trainee's activities, ranging from the nature of the qualifications necessary to obtain certain jobs in the field to the adequacy of the instructional materials or other instructional experiences provided to support a trainee in learning how to perform a particular task.

Career Advancement, the Relationship Between Jobs and Training

One of the more effective motivating forces for a trainee is likely to be the linkage between training and job prospects and possibilities. Very few training programs attempt to consistently relate training objectives and training desires of trainees to job opportunities.

In the proposed program a regular mechanism for eliciting the kinds of competencies demanded by employers with available job openings in the field is provided, and mechanisms are available for feeding this information to trainees at times appropriate for the renegotiation of proposed competency profiled.

Degree Granting

Modern society is a credentialed society. A trainee must not only have his own competencies and skills increased, he must be recognized as increasingly skilled by potential employers. He must receive a credential which has recognized value across as wide as possible a variety of audiences.

The proposed program will be degree granting. Trainees will be enrolled in degree programs at any one of the three universities, will receive credit toward the masters degree for the training experiences of the program, and may eventually receive full credit, even to the doctoral level, for completion of the program.

Consortium Implemented

To an ever increasing degree consortium arrangements are becoming common in all areas of modern society, largely because the problems which must be solved are becoming too complicated for single institutions. There is a considerable body of evidence to demonstrate that consortium arrangements are becoming more and more common and necessary in education, and for this reason it is important for trainees to have experience working within a consortium.

Furthermore, the personalized nature of the training program requires that a large number of training experiences be available to trainees. No one institution has available a wide enough variety of skill and competency opportunities, to handle the personal needs and desires of a large number of trainees. A consortium must be formed to provide a wide enough range for trainee experiences.

Finally, if a consortium is involved in the implementation of a common program, the generalizability of that program is vastly increased, for the competence necessary to implement such a program is spread across personnel from a variety of institutions. This training design will be implemented by a seven-member consortium.

Self-Adaptive Nature

The project focus has the capacity to keep the training program continually up to date and continually self-adaptive. Projects have only a limited life. New projects must begin as old ones fade out. By the nature of the project funding mechanism, new projects which are funded inevitably deal with different topics and different priorities from old ones. They may then require somewhat different competencies and skills, but with the training program tied directly to projects, the training program will consistently be dealing with up-to-date training needs.

Traditional University-Based Classroom Training vs. the Proposed Program: Advantages and Disadvantages

No training program can do all things well. In some ways this design is a significant improvement over traditional methods of instruction and in some ways it is not. We believe there are compelling forces in society which make the development of a program along the lines indicated here critically necessary for the present and for the foreseeable future. However, there will be some disadvantages to such an approach.

Traditional training programs which take place at centralized or university settings in classrooms have a number of advantages. They deal very well with the problem of general knowledge acquisition. There is a predictable output of the program. The management problems are minimal, and because of this the cost per trainee is quite low. Group instruction is probably the cheapest form of instruction.

However, there are a number of disadvantages. This model of instruction assumes a relatively stable society with rather constant skill requirements for different occupational roles. There is no direct mechanism for linking the instructional program of the classroom to the real world, and for adapting that instructional program to changes in the real world. It is often true that the content of classroom training programs lags behind the requirements of actual job occupations, and much must be learned after an individual reaches a job position.

Also, in traditional programs there is a very weak link between knowledge acquisition and changes in behavior. It is often true that someone trained in a classroom is unable to put his training into practice. Part of the reason for this is that classroom training programs rarely deal with the skills necessary to implementation. Interpersonal skills and problem recognition and definition are usually not treated, and in fact are very difficult to treat in classroom programs. As is widely known one of the most difficult tasks for doctoral candidates is the definition of a researchable topic for a dissertation. Traditional programs tend to turn out highly sophisticated technicians. The classroom experience of most trainees is far removed from real problems.

The proposed training design is based on a very direct link between actual job performance and training. Performance on the job in an actual project activity is the instructional objective. Since the trainee must perform tasks in actual job situations, he will be forced to learn the peripheral kinds of skills necessary to use technical knowledge. The knowledge of traditional training programs becomes in this program an array of possible problem-solving strategies. Knowledge is not learned because it is knowledge but because it is relevant to the solution of an actual problem. Knowledge is not learned prescriptively, because teachers say it is important, but knowledge is learned because the necessity of solving real problems demands the knowledge.

Furthermore, in a changing society with rapidly obsolescent training, professionals who know how to engage in continuous learning are badly needed. Traditional programs do not produce professionals skilled in this. This is a critical objective of the proposed program.

The disadvantages of the proposed program for the most part have to do with the operability of the model. There is little precedence for as complicated a training program as the one proposed here, though there are a number of training programs sponsored by various members of the consortium which have one or another of the components in operation (See Appendix G). There are field centered apprenticeships. There are competency based training programs. There are programs which grant degrees and credentials for training which takes place in non-university sites. This program proposes to combine all three of these threads.

The administrative and information management problems are enormous, and the cost is likely to be substantially greater than group instruction in central classrooms. Furthermore, the transitional phase is difficult to manage. Instructors will need to play a new role, and new reward structures will need to be developed for the role. Credentials will need to be awarded on different grounds or new credentials will have to be developed. Placing trainees in operating job contexts will force the development of the capability to deal with a whole range of problems which ordinarily do not arise inside classrooms.

We think it is important not to avoid these problems but to solve them. If solved, the training program proposed here will be a significant advance over existing training programs and will provide a model which is highly generalizable to almost any training program.

A GENERALIST TRAINEE IN A DEVELOPMENT PROGRAM: A SIMULATION

Trainee Recruitment (Event I)

Frank Finch is a 30-year-old-male, married and has two children . . . Bob, 7, and Mary, 5. His education consists of a BA (1963) and an MA (1966) from Oregon State University. Both degrees were in education with a concentration in mathematics. Recently he completed some coursework in computer science and has worked part time during the summer months at the Northwest Regional Educational Laboratory (NWREL) as a programmer. He has taught at the secondary level (mathematics) in the Portland Public Schools for the past five years and has been evaluated by his administrator as an outstanding teacher. His present salary for the school year (nine months) is $8,700. For two consecutive summers, he was assigned to a curriculum improvement project in the area of mathematics; and his contributions were judged to be superior.

On March 5, Frank received a brochure from Teaching Research (TR), Monmouth, Oregon, describing a training program in educational development and evaluation to be conducted by a consortium which includes, among others, the NWREL and the Portland Public Schools. He called the Executive Director of NWREL to discuss the program and was encouraged to make application. His immediate superior in the school district also suggested that he talk to the district Assistant Superintendent for Evaluation to obtain details regarding the program and future possibilities for placement within the district upon completion of the training. On March 11, Frank completed the application form which was included in the brochure and mailed it to Teaching Research.

In return, Frank received a letter on March 16 from TR indicating that a meeting has been scheduled for all applicants on Saturday, March 20, in Monmouth. This was to be an all-day meeting, and his expenses would be paid by TR.

Upon arrival Frank found himself among a group of 40 applicants, some of whom he had met previously in school or at educational conferences. The program began with introductions of the program staff followed by a comprehensive explanation of the goals, training plan, agencies involved, benefits to be gained and sources of support. He saw a slide-tape presentation showing what the training program would prepare him to do. The tape presented job descriptions of individuals presently engaged in development and evaluation and their activities as they function to produce a product.

Frank quickly realized the extensiveness of the kinds of tasks which people perform in the areas of development and evaluation; and he was particularly interested in the area of development. The slide-tape had shown a rough profile of activities performed in both of the areas; and, with a high degree of interest, Frank visualized himself actively engaged in development tasks.

Following the slide presentation, the total group was divided into several discussion groups according to interest area. Each discussion session lasted for a period of one hour. Frank found the development area to be much more to his interest. Within each group, a program staff member answered questions and related the profile of activities to the personal background of each applicant. He briefly questioned each individual as to present experience, professional aspirations, anticipated future jobs and alternate job possibilities. At the end of the small group sessions, each applicant was scheduled for an individual interview with a member of the staff during the afternoon. At this interview, a rough profile of Frank's background, experience and aspirations was generated which included a list of reference people who could be contacted for further information regarding his performance and for a transcript of his training from an educational institution. He was also told that would have to meet entrance requirements for a masters degree from one of the three universities in the Consortium, and he was asked which of the three he would prefer. He chose Oregon State University. At the close of the interview, Frank was informed that there would be a preliminary screening of candidates and that a tentative acceptance or rejection decision would be made within the next two weeks. He was told that he would receive a letter of notification of this decision by April 5. (Twenty-five candidates would be selected out of the forty.)

The program staff met Monday morning to discuss their reactions to the candidates and to plan their week's schedule for gathering additional data on each applicant. Contacts (phone) were made with reference people to schedule personal interviews when feasible. A folder for each candidate was developed which included applicant's transcript, rough profile, interviewer's assessment, reference narratives, application, criteria for admission to the university he had selected and any materials which were pertinent to judging the potential of the applicant.

During the following week, the program staff made a summary assessment of each candidate. Each candidate was classified according to interest area (development or evaluation) and ranked as to potential as a trainee. Twenty-five candidates were chosen (thirteen in development and twelve in evaluation) to participate in the intake program. Four more were selected as alternates (two in each area) in case of non-acceptance. Letters of notification were mailed to all candidates on April 4 indicating tentative acceptance, alternate status, or rejection.

A letter arrived at Frank's home on April 6 indicating: (1) tentative acceptance into the Development Training Program, (2) plans for the intake process to be held April 22-26, (3) notification that a final decision of acceptance or rejection of a trainee would be made May 5 and (4) notification that a return letter of acceptance to participate in the intake program had to be received at TR by April 12.

The Induction Process (Event II)

Frank arranged to come to Monmouth for the one-week intake process. Arrangements were made by TR with the institution where he worked either to pay for a substitute for loss of the work he would have accomplished for the week or to pay him for his loss of salary.

On arrival Monday morning, Frank met a group of twenty-five trainees and the members of the training staff. The group was informed that the training program only had room for fifteen in the first training group and that the intent of this week was to select the fifteen who could benefit most from the training program and the training experiences which the program had available. An expanded version of the slide-tape presentation from the previous meeting was played again, reviewing the nature of the training program and explaining in addition the competency profiles and the function which they would play in the program.

The remainder of Monday and all of Tuesday were spent in detailed individual trainee discussions with a member of the training staff. Together, they completely filled out a competency profile (see Appendices D, E, F) on each of the trainees. Frank found the process lengthy but clear-cut. If he did not understand what the meaning of any particular task was, he was given a brief explanation with an example. The training staff member had available an example for all of the tasks. With each task, he was asked if he had ever done anything like it. If he felt he had, he was asked to describe it. If the training staff member agreed his experience was a relevant example, he was asked to describe the conditions under which he did it and how well he felt he did it. These ratings were entered on the rating form, and Frank and the staff member jointly agreed what to rate each item.

When the interview was over, Frank was given a copy of his profile. The profile was explained. Then he was asked to work individually to come up with a preliminary exit profile or proposed profile which would satisfy his own interests and the demands of the training program.

Frank spent the next day working up a profile of the competencies he would like to have when he left the training program. It was immediately obvious that he could satisfy the demands of the training program in many, many ways. He looked at the profiles of developers presently employed, and he attempted to see if he would like to work toward a profile like one of theirs. He examined the profiles of job-slots which had been identified in the immediate region. He looked up and read through examples of some of the tasks which weren't clear to him. Several staff members were available to help him whenever he had any questions. By the end of Wednesday, he had a proposed profile which seemed satisfactory both to him and to the requirements of the training program.

On Thursday, all of the trainees found themselves confronted with a set of problems, a different set for each trainee. It was explained that the training staff wanted a way to check the self-perceptions of the trainees. With this goal in mind, two of the competency ratings from each trainee's entrance profile were selected at random. From these, simulated problems had been constructed for the trainees to work. There was a large library and other reference materials available. Frank found the simulated problems very similar to ones he had worked on the summer before at NWREL, and he was able to complete them rather quickly. For one statistical calculation, he had to find some formulas in one of the statistics books; but that wasn't hard. It appeared, at least from his work on the simulated problems, that perhaps his self-perceptions of competence had been a bit understated.

On Friday, Frank again had a lengthy conference with one of the staff members. He was asked about some of the aspects of his proposed profile.

Some changes were suggested. He agreed with two of the suggestions and defended his own choices on the other two. The staff member made it clear all along that the original profile did satisfy the demands of the training program, including the university requirements for a masters degree, and that possible changes were only suggestions.

After he and the staff member had agreed on the proposed profile, Frank was asked to indicate the competency areas on which he would like to work first. He selected three, and rank ordered them. He was told that if he was chosen as one of the fifteen for the program, these selections would be used to determine his first field placements.

Approximately one week later, Frank was notified that he had been selected for the training program. He was told that the summer program would begin on June 15; and, in addition to other information (location, length of the program, pay, facilities, etc.), he was sent a reading list which was appropriate to the three competency areas he had selected for initial concentration. He was told there would be a reading and instructional program to accompany the summer training experiences. It would be based on the enclosed list of books and materials. Anything he could do to familiarize himself with the items of the list would be beneficial to him.

He sent his acceptance and proceeded to get ready for the summer.

The Trial Projects (Event III)

When Frank reported for the summer project, he found only four other trainees. Three special summer projects had been created especially for the training program. Each of these involved working with trainee expectations for the next year, the staff training program and procedures for handling all of the details of the training model. Frank and four others were assigned to one of the projects, centered at Teaching Research.

The project was definitely a project. Teaching Research was under contract to develop four simulation games for use in high school classrooms in the state, and the work had to be completed in five weeks. However, since Teaching Research had already produced a large number of games, the tasks to be done and the competence necessary to do them were well known. It was an ideal project for a training activity. The staff of the project were the ones who would direct the training program in the field settings after the summer.

When he arrived, Frank was assigned an advisor. He was told that he would have regular conferences with his advisor, and they would jointly review his work at every conference, making judgments as to its quality and determining the kinds of learning experiences relevant to its improvement.

The initial project meeting was held the first day. The project director explained the tasks to be done, the timelines to be met, and assigned work to everyone, including Frank. There were some assignments open for discussion; there was time carefully taken to explain why the project was planned the way it was. But, clearly, it was a real project; and work would have to be produced on time to meet its requirements. Frank's first task was to take the results of a set of interviews conducted with teachers who had used the previous simulation games and reduce and analyze the data to guide the design and development of the present games. He was to report a preliminary analysis on Friday of the first week, complete with recommendations.

Two seminars ran during the summer, one directed at the resolution of problems the trainees were facing in accomplishing their work, the other at the "clinical" problem of how to derive learning from ongoing contexts. These met once a week for three hours in the afternoon. Conferences were scheduled with his advisor twice a week. Other than that, the striking thing to Frank was how much he was on his own. He had a job to do. So did everyone else. It was up to him to figure out a way to get his job done. He consulted his list of instructional materials, found some on data reduction, and headed off for the library to get started on his task.

Wednesday morning was his first scheduled conference with his advisor. By then he was intensely frustrated. He had read through the interviews, but he had no idea what was important or how to put it together for the meeting on Friday. In a two-hour conference, his advisor helped him sort it out: they determined the objectives of the games in the project, the aspects of the design which might be changed and the parts of the interview possibly relevant to each change. They developed at least a semblance of a form for recording the coding of the data, and agreed that just something as simple as frequency counts of various suggestions would help. By the time he left, he had some sense of how to proceed.

By Friday of the first week, he had managed to do a first coding of the material; and he had the frequency counts of various suggestions available for distribution. However, at the staff meeting, the project director asked him directly what advice he had for the designers, based on the interview data. He had neglected to formulate a set of suggestions, based on the data. The director told him that he should have, as it would have saved them a lot of time to have a set of suggestions, supported by the data, rather than to have to determine the suggestions from the data. Nevertheless, he took a portion of the meeting and with the staff went over the coded data, determining the substance of the suggestions and discussing whether and how these suggestions might be incorporated into the design of the games. Frank felt a modest success. He also watched how they developed suggestions from the data.

On the following Tuesday, during the afternoon seminar, Frank's work was one of the topics of discussion. After he presented what he had done, he was criticized from a variety of different points of view, the main one being that he was the only person who rated the interviews, and that at least he should have checked his own reliability, as well as having someone else do a set of ratings to compare to his own. By the end of the seminar session, he understood the various problems created by his procedure and had developed some possible approaches to overcoming these problems.

The Tuesday afternoon seminar continued this way during the entire summer. Each person's work was brought up for discussion; and suggestions for improving it were made, based on a broader view of the nature of this kind of problem and the general principles of evaluation or development involved. They were informed that this kind of seminar would continue during the entire training program. By the end of the summer, procedures were established for easily formulating an agenda based on the work that each trainee had been doing; and staff members prepared to teach the seminars around the topics which arose from trainee work. In many cases, trainees were given assignments after the seminar to partially redo their work to test whether they understood the nature of the problems and how to overcome them.

The Thursday afternoon seminar concentrated on the problems of the identity of the trainees in an operating project, and the development of strategies for dealing with problems, be they interpersonal problems, learning problems or ethical problems. Regular group-process work was done to deal with interpersonal tensions. Possible critical problems in the relationship between a trainee and the site institution where he would be working were discussed, roleplayed and appropriate strategies determined. Procedures for handling trainee dissatisfaction with any aspect of the training program were established and tested in roleplay situations. Staff and trainees worked on their relationships, on the best way to provide supervision, on how to tell a trainee that his work was unsatisfactory. Interviews in which the trainee's negotiated profile was reviewed were acted out, and the proper procedures discussed. In the course of the summer, the seminar became the place where virtually any problem involved in running the project or the training program could be brought up; and the staff and the trainees reexamined the way it had been handled and how it should be handled in the future. By the end of the summer, Frank felt much more secure. He knew he would have problems, both in completing work and in dealing with the dual role of trainee and project staff member. Still, he was confident that he could deal with these problems; and he trusted the training staff to help him.

During the last few days of the summer session, Frank and his advisor held a conference to review and revise his proposed competency profile, based on what had happened during the summer. Bacause of his work during the summer, he had made considerable progress in the area of reducing and analyzing data. He was well on his way toward the competency level he had originally set for himself. He again was asked to select three areas on which to concentrate and to order them according to his preference. He decided not to list reducing and analyzing data again, but rather three others. He was told that he would be notified soon as to where he would begin work on September 1, and on what area of skills he would work.

Actual Project Assignments (Event IV)

Shortly before September 1, Frank received a large packet of information about his first training assignment. All of the trainees' selections of their preferred areas of concentration were matched with the available training experiences in designated training projects, and a procedure of maximum fit was employed. Frank was assigned to a project in the Northwest Regional Educational Laboratory which would offer him the chance to work on his second and third choices of competency areas. He would have to wait until later to work on the competency area he would have preferred most, but he was not dissatisfied.

He received a copy of the project proposal, examples of all of the documents which had been produced so far by the project, information as to where the project was in its timeline and the tasks which he would be expected to do. He was informed that he was scheduled to be with that project until January 1, and that it was expected he could develop to his negotiated level of competency in the two areas by then. He also received the name of his supervisor, the name of the training project director and the name of the training site coordinator based at NWREL. At NWREL, the training project director and the training site coordinator were not the same person, though at some other institutions they were. His supervisor had not been at Monmouth during the summer, but had been trained in a similar trial project in Portland. His supervisor (or staff/trainer) was one of the staff of the project on which he would be working.

He carefully studied the materials and got a good sense of what the project was about and what it was trying to do. He even found he had some ideas for improving the work already done which was not strictly within the range of tasks he would be assigned, and he made a note to tell the staff members responsible for them about his ideas.

He arrived at NWREL on the designated day, and met the people involved in the training project, as well as his training site coordinator. During the two initial days, he was in an almost continuous series of meetings, either with the staff of the project to which he was assigned, or in meetings of all the trainees at NWREL (five, on three projects) with the training site coordinator. They received a comprehensive orientation to the institution itself--its objectives, its funding base, the range of activities, and where their particular project would fit into the overall work of the institution.

Frank also had a lengthy meeting with his supervisor, in preparation for the first assignment of a task for him to do. It turned out that activities at the site would run similarly to what they had during the summer, with two seminars per week, regularly-scheduled conferences with his supervisor, regular staff meetings and deadlines to meet. However, the press of work was expected to be substantially greater, and the support available somewhat less. He would be more on his own, and expected to get his work finished. Fortunately, there was an even more complete library and set of instructional materials than had been available at Monmouth (it had been added to since the summer); and he was well trained in using the materials.

The materials under development by the project to which he was assigned were to train students to use computer terminals located in schools in the area. The materials were already at a prototype stage, and he was assigned the task of determining the type of population which ought to be involved in testing the materials, a population which would provide the maximally useful feedback to the developers. He was to describe this population in a manner that the people in the cooperating schools could seek out some students who fit the description.

His four months at NWREL passed rapidly. Once, during the first month, he had to protest since he was given the same type of work three times in a row, in spite of the fact that he had done well on both of the first two times he tackled that task. He discussed the matter with the training site coordinator, pointing out that he had seven types of tasks which he had to complete, and he couldn't spend all of his time doing only one. The training site coordinator and the training project director conferred on the matter. The feeling of the training project director was that he needed the job to be done and Frank was not only the only person who could do it, he could do it well. After discussing the issue of what Frank needed, they reached an accomodation by which Frank would work on a different task, while supervising one of the other trainees learning how to do the one with which he was competent. It was extra work for Frank, but he recognized that he would learn the skill even better if he had to train another person.

One task Frank botched badly. He was supposed to arrange for and conduct a field test of a set of the materials in one of the test schools. He met with the principal of the school and arranged for the test, but he neglected to work closely with the teachers and assumed that the principal had communicated the intent of the test to the teachers. The principal had not. Furthermore, there were rumors about the ill-effects on students of working with machines, and when Frank arrived to test the materials, the teachers were actively resisting and refusing to allow their students out of class for the test. Several of the regular project staff had to be called in to patch things up, and to restore the relationship between NWREL and the school. The test was finally conducted, but it was not a good test.

Frank was defensive at first but finally admitted that he had not done a lot of things he should have. The staff was supportive of his attempts to determine what he should do differently. He felt he had probably learned more from the mistake than from the things he had done well. The staff was unable to arrange another attempt for Frank to set up a trial field test, so that area of Frank's competency profile remained unfulfilled; he would have to try again on some other project. Overall, however, Frank felt a great deal of confidence in his ability to handle the kinds of tasks he had been given, and he had learned a great deal about the Laboratory.

Just before Christmas Frank had another lengthy conference with his advisor, this time again to examine and revise, if necessary, Frank's competency profile. During this discussion Frank did make some changes. He changed somewhat his original emphasis on statistics and data analysis, and increased his proposed levels of competence in the areas of management and interpersonal relations. He then selected three more areas, and ordered them in terms of his preference. Approximately a week later he received a notice that he had been assigned to a project at the University of Washington for the next three months.

The Placement Process (Event V)

Frank remained in the program for sixteen months. Before that time he had built up his competencies in all of the areas of educational development, and he had attained the profile levels he had specified. However, toward the end of the first year the placement service of the training program had reported to him that an employer was looking for a man with a profile of competence similar to his. He had made contact with the employer, and through mutual agreement he remained in the training program for an extra four months to gain additional competence in one area which the employer particularly wanted. The employer agreed to pay most of the costs of Frank's additional training.

When Frank left the program he received an official competency profile, listing the work he had done and the competency levels he had attained in each area. Further, his work had been reviewed regularly by the universities involved in the consortium, with particular reference to the seminar work related to his field experiences, and he was granted a second Master's Degree, this one in Educational Development, from Oregon State University. As he left, he was informed that the training program staff would be very pleased if at any time in the future he wished to apply for readmission to the training program.

THE INSTITUTIONS IN THE CONSORTIUM

The members of the consortium who have committed themselves to the implementation of this training program are: The University of Washington, the University of Oregon, Oregon State University, the Portland Public Schools, the Northwest Regional Educational Laboratory, the Oregon Board of Education and Teaching Research.

At the end of September, 1970, an Interim Governing Council was formed of top officials of each of these institutions.* This Interim Governing Council met regularly to formulate policy, to establish tasks for the core design group, and to review, modify or approve the work of the design group. The Interim Governing Council will be superseded by the Governing Council (with identical membership), assuming that this training program is funded.

The minutes of the Interim Governing Council meetings are included in the volume entitled, Activities of the Design Phase.

The Roles of Each of the Institutions

As one of its initial tasks a document was prepared by the Interim Governing Council members stating the rationale for the consortium, and suggesting the roles of each of the members. (See the Preface to the Appendices) While the details of the involvement and interaction of the institutions remain to be worked out, in general form the roles of each of the institutions can be simply stated. The universities are a part of the consortium for a number of reasons: they are the only institutions in the states who run training programs as one of their primary purposes. They already have numerous field-centered training programs, but they regard this proposed design as an important extension with which they wish to gain experience. They can be expected to legitimize these training programs through the granting of appropriate degrees to trainees, they can be expected to provide many of the training staff, they have the capacity to attract highly competent trainees and to help in their placement after training, and they may well also become training sites, as enough of their activities are structured as projects to meet the criteria for a training site.

The other institutions are, with the exception of Teaching Research, primarily involved in the consortium to become training sites. They have large numbers of existing projects in operation, and there is every reason to believe they will continue to have many operational projects. While they have some staff members who will become training staff, they need trained manpower and can be expected to contribute substantial money to the training program for trainee support.

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*The Deans of the Schools of Education of the Universities, the Assistant Superintendent for Evaluation of the Portland Public Schools, an executive officer of the State Board of Education in Oregon, and the heads of the Northwest Regional Educational Laboratory and Teaching Research.

Teaching Research has historically been involved in the design of new patterns for training RDD&E personnel. It is charged by the State Board of Education with the responsibility for serving as a catalytic agent to the State System of Higher Education. Thus, it is appropriately cast as the coordinating institution for the task of initially establishing the training program and phasing it into the operation of the universities so that the training program may be maintained after the demise of federal funding.

More detailed descriptions of the consortium institutions are provided in Appendix G. In general, two kinds of additional detail are provided: examples of training programs run by the universities which are similar in many ways to the program proposed here; and projects which are potential training projects. The former are cited as supporting evidence that sufficient expertise and experience exists within the consortium to implement the design. The latter are cited to demonstrate the ready availability of projects in the region. Detailed studies of some of these projects have been completed to determine their appropriateness as training projects, and these detailed descriptions, along with the survey instrument, are included in Appendix H.

THE TRAINING PROGRAMS PROPOSED

Developers and Evaluators

The Pacific Northwest Training Consortium proposes initially to train educational developers and evaluators. The available training settings, and interest and ability of the staff in the various possible training sites, and the array of training resources of the consortium institutions are consistent with this dual emphasis.

Among the specific reasons for an emphasis on development are:

1. The "interdisciplinary" nature and team quality of development projects requiring competencies across the areas of RDD&E, make development projects ideal training sites and appropriate contexts in which to employ the clinical, field-centered notions of training.
2. Development is presently perceived as a high priority need, nationally and regionally.
3. The focus of the Northwest Regional Educational Laboratory is development, and it has many projects available as training sites, as well as a systematic procedure for executing development.
4. Work in instructional systems, simulation and gaming, and situational assessment at Teaching Research has laid a foundation for the specification of competencies in development, and the development of materials and procedures to train individuals in those competencies.

Among the specific reasons for an emphasis on evaluation are:

1. The high and increasing national and regional demand for evaluation, both from political and professional sources.
2. The wide availability of ongoing evaluation projects in the region for use as training sites, particularly within the Portland Public Schools and within Teaching Research.
3. The intensive, more narrow, and fairly structured content and atmosphere of evaluation activities, as contrasted with development activities, provides both a different forum for the use of the clinical model and increases the likelihood of exposing trainees to a diversity of project structures.
4. The Evaluation Training Materials project at Teaching Research has made substantial progress in specifying evaluation competencies, producing training materials and training procedures for these competencies, and implementing evaluation training.

5. Effective work in all areas of educational RDD&E will require competencies in management monitoring and measurement of impact, both of which are usually classified under evaluation competencies.

6. There is a likely interaction between evaluation and development, so that as the quality of evaluation projects increases, there will be an increasing demand for development specialists who can take the evaluation data and recycle the findings into improved products. Development training programs should run simultaneous with evaluation training programs.

For the general and specific reasons given above, evaluation and development have been selected as the two initial foci for the training programs.

The consortium felt that demonstration/dissemination or diffusion is a critical function, especially in the sparsely settled regions of the Northwest, but a sufficient number of questions remain unclarified to preclude its selection as a primary focus. For example, it is not clear whether diffusion should be performed by developers or by diffusers; it is not clear whether it should operate on a project basis, or on some larger institutional basis. Therefore, it was decided to delay planning to train "pure" diffusion personnel and, instead to identify key competencies of diffusion and integrate them into the evaluation and development training programs in a small, selective way.

With respect to the training of "pure" research personnel, while it was felt that research training in a clinical training framework would produce personnel of a different cast from those produced in the classical academic setting, it was not clear what the immediate payoff would be to educational improvement from training such personnel. It is not clear that individuals trained in the proposed design would best meet the long-range need for quality basic research in education, even though this need is not now being met by conventional educational research and educational psychology programs. Given these ambiguities, and given the anticipated relatively low level of funding for educational research in the next few years, it has been decided to delay planning to train "pure" research personnel, but to identify key research competencies involved and to integrate these selectively into the evaluation and development training programs.

Generalists and Specialists

Within both the development and evaluation areas there will be two kinds of training programs, "generalist" training and "specialist" training, making a total of four separate training programs. A generalist will be trained across all of the eleven identified functions of either development or evaluation (See Appendix E). A specialist will be trained to roughly the same level of competence, but in only two or three functions of development or evaluation. A specialist is trained to the same level; he is simply not as broadly trained. Since the specialist has to cover fewer areas of competence, it is assumed that fewer different field placements will be necessary and that a person entering specialist training will either have a lower level of entering competence than the generalist, or will not remain within the program for as long a period of time.

Long-Term Training

The training model, with its emphasis on productive work within projects, is not appropriate for short-term institutes or workshops. Projects and project sites need continuity of personnel assignments. Moreover, since the recruitment and induction activities alone will require considerable time and effort on the part of both the trainee and the staff, it will be necessary to set a minimum length of time the trainee will remain in the program. While the individualized nature of the program makes prediction of the exact length of training impossible (it will be different for each trainee), it is anticipated that no trainee will be admitted for less than six months, even in the specialist training programs. It is anticipated that generalist training will involve several training project assignments, and will require at least a year.

The Characteristics of the Initial Trainees

The initial fifteen trainees will enter with a high level of training. Every effort will be made to insure that all entering trainees already possess a masters degree, and in no case will a trainee be admitted who does not already possess a bachelor's degree.

A condition of acceptance into this training program for the initial trainees will be acceptance into a degree program at one of the three consortium universities. The universities will grant credit toward degrees for the work of this program.

For the above reasons the initial trainees can be expected to be like those already employed by the consortium institutions--school district teachers and administrators; experienced non-PhD staff of a laboratory or research center--or students already enrolled in degree programs at the universities who would modify their present programs for a year of training in the proposed program.

There are compelling reasons for this initial emphasis. First, the developmental problems of the first year of this training program are large and difficult. The consortium does not wish to also confront initially the problem of large-scale basic knowledge instruction. If, in terms of basic substantive knowledge, all of the trainees possess a solid base, this will free the training program to concentrate on the field-centered and action-centered components of the training model.

Second, the universities wish this training model to influence their existing programs, and they wish it to do this from a position of strength. This training program would be a more powerful influence if the initial group of trainees were clearly qualified for admission to their graduate programs. Furthermore, through providing training for students already enrolled at the universities, this would also provide leverage for influencing existing training programs.

Third, in order to be able to grant credit for the work of this training design, at least in the initial phases, the universities must be certain that the training is of high quality. They will feel more secure in making this judgment if the program has admitted highly qualified trainees.

Fourth, from a design standpoint many of the details of the operation will need to be worked out in cooperation with the trainees, and it is important that the initial group of trainees be capable of being part of that development effort.

The long-range intents of the program are to be able to be less concerned about the initial level of training of individuals; to progressively grant more credit, more easily, toward higher degrees, for the kinds of activities supported by this training design; and to progress toward either different kinds of degrees or the granting of recognized degrees on different grounds than usual.

The clear consensus of the consortium was to start the program with as many things in favor of survival and success as possible, and to move over the years of the training program in the direction of taking on more and more difficult conditions.

The Potential For Employment of Trainees

The initial trainees can be expected, after completion of the program, to fill positions of substantially greater responsibility, involving greater independent judgment, than the positions they filled before entering the program. Such positions will be different, depending on the institution to which the trainee returns. In the case of generalist trainees these positions could well include directing projects of modest size and complexity. A number of trainees can be expected to continue in one of the cooperating universities after this training program to finish requirements for a doctorate.

There is every reason to believe that ample job opportunities will be available for trainees leaving this program. Careful systematic projections could not be undertaken with the resources of the design phase, but lengthy interviews were conducted with a number of potential employers, and placement does not seem to be a problem.

One such interview, with Dr. Leo Myers, Assistant Superintendent of Public Instruction in Oregon, did result in projections. The basis of his projections is not known, but they are likely to be the most accurate available.

On the basis of continued consolidation of school districts, and on the basis of increasing sophistication in school district planning and hiring, Dr. Myers estimated that the average rates of hiring, over the next 10 years would be six developers per year, six program evaluators per year, and three instructional evaluators, per year, for a total of fifteen "new hires" per year in Oregon. It was agreed that these personnel should be competent generalists at something like the masters degree level.

On the basis of some expansion of the Oregon State Board of Education activities in the area of accountability, and on the basis of normal attrition, it was estimated that the department would hire, each year, one developer, one program evaluator, and one instructional evaluator, per year, for a total of three "new hires" per year in Oregon.

These two sources of employment, then, in Oregon along, would absorb eighteen people per year, or 180 over the next 10 years. In addition, the Oregon State Board of Education estimates that a total of 10 FTE of additional personnel of these types would rotate through the department on a three months basis, and that including these personnel, school districts would be likely to hire, on a shared basis, perhaps another 50 to 150 FTE, over the next ten years.

These estimates indicate that in one employment sector, public education K-12, in Oregon, a substantial number of jobs for our trainees will be available. When one considers that other states will presumably have similar needs, and that, in addition, other employment sectors, such as higher education, R and D centers, and regional laboratories will be doing a reasonable amount of hiring, it is possible to feel reasonably secure about the placement of the numbers and varieties of persons that the program proposes to train.

THE DIMENSIONS OF THE TRAINING PROGRAM THE FIRST YEAR

Initially, there will be fifteen trainees, approximately half in development and half in evaluation. Of the fifteen trainees, approximately twelve will be in the generalist training programs, and three in specialist training. With the enormous need for evaluation and development personnel in education, the conscious choice was to concentrate originally on generalists with a fairly high degree of training. These people would have the capacity to function independently in the field, and over a period of time, could be expected to create a need for specialists. As the training program continues, it is anticipated that there will be a slight decline in the proportion of generalists trained and an increase in the proportion of specialists trained. The initial group of trainees will be admitted for one calendar year though some may complete the work in less time.

Initially, three special training sites will be established. Each of the three training sites will have approximately five trainees and three staff, a site coordinator and two staff/trainers (each half-time), plus secretarial support. The central coordinating unit will have three staff, the director and two assistant directors, plus secretarial support. The entire program will have nine staff FTE, plus secretarial support, for the fifteen trainees. However, over the first three years the number of trainees will climb to at least 45 per year, while the number of staff FTE will increase to only thirteen. The higher ratio of staff to trainees in the initial years will free staff to support the development and evaluation work which must be accomplished in this program.

A trainee will progress through five stages or events in the training program: Recruitment, Induction, Trial Project, Actual Project Assignment and Job Placement. The director, assistant directors and training site coordinators will be personnel from the three universities in the consortium. Initially, the director and the assistant director will physically work out of a central location, Teaching Research. By the end of year three, the coordinating unit's functions will be decentralized, the director operating from one university setting and the two assistant directors from each of the other two universities. During the initial year, the functions of the central coordinating unit, which are presently grouped into three full-time jobs, may well be accomplished by a task force of several people performing the work of each role.

THE SCOPE OF WORK TO BE ACCOMPLISHED

The work to be accomplished is described in two ways in this report. When describing the organizational structure, we have discussed continuing functions which must be performed by each part of the organization in order to develop and maintain the training program. This analysis is included as Appendix J.

In preparing the budgets for the first eighteen months of the program, we have organized chronologically the work to be done and have grouped this work into five discrete events. These events, tasks, and timelines are included as Appendix I, and are repeated in the budget volume.

This section of the present volume will summarize the work of the first eighteen months. The appropriate appendix should be consulted for further insight into either when it will be done (Appendix I) or how and by whom (Appendix J).

Consortium Operation

Procedures must be developed to enable the consortium to operate efficiently and effectively. With the recognition that this would not be easy, as the consortium involves a very diverse collection of institutions which are separated by substantial physical distances crosses state lines, the consortium began operation during the design phase. Procedures for decision making were established during the design phase and have functioned during this planning period. A governing council, made up of top administrators of each of the institutions formulated policy and reviewed the work of the consortium. The governing council will continue to function during the funded phase of the project.

With respect to this particular training program the operation of the consortium will be evaluated during the years of federal funding. The intent at this time is to maintain the consortium, if possible, after federal funding has been phased out. If this proves financially impossible, the intent is for the universities to have developed by that time sufficiently simple procedures for cooperation among themselves and with the training sites so that a formal consortium is no longer necessary to maintain the training program. If neither of these alternatives is viable, steps will have been taken during the years of federal funding to insure that the expertise necessary to maintain training programs along the lines of this instructional model has been developed at each university site. The intent is for each university to develop and maintain training programs like the proposed design after the period of federal funding.

This is a frank recognition of the fact that consortia do require extra resources to be maintained. There can be no guarantee at this time that the consortium can continue to exist in the absense of outside support, but every effort will be made to guarantee it.

One expectation is that the regular meetings of the institutions involved in the consortium will develop into useful and important meetings beyond the needs of this particular consortium. If this happens, the likelihood of maintaining the consortium is increased because of the additional benefits to the involved organizations.

Staff Selection

Effective procedures must be developed for staff recruitment and selection, evaluation of staff performance, staff promotion or career advancement and termination of employment of ineffective staff members. The director, the assistant directors and the training site coordinators will be personnel from the universities. The staff/trainers will be selected from the training project staffs.

The procedures established by the Interim Governing Council specify that if the program is funded the Governing Council will first select the program director. The program director will select the coordinating unit staff with the advice of the deans of the universities who will suggest possible personnel. The program director will select the training site coordinator from among possible university personnel, and the staff/trainers in conjunction with the head of each field site institution. In all cases, the selections must be approved by the Governing Council.

Until the program is funded, the institutions in the consortium cannot proceed to free critical staff members for this program, particularly since the program will begin in February. The members of the consortium have nomitated a number of individuals who have the capability of filling the major roles in the training program and who could be freed if the program is funded. The names and vitae of these individuals are included in Appendix K. It should be emphasized that the final selection of staff will be made by the Governing Council after the funding of this program.

Recruitment, Selection and Induction

A brochure will be designed and produced by the project staff with the assistance of the Northwest Regional Educational Laboratory (NWREL) containing a description of the members of the consortium, the goals of the program, characteristics of those goals, who is eligible to apply, deadline dates for application and benefits to be realized by trainees. The brochure will also contain an application form designed to obtain specific information about the candidate.

Brochures will be distributed nationwide to schools of education in colleges and universities, chief school administrators of public schools, professional associations, state departmentsof education, and regional educational laboratories. Efforts will be made to open the program to minority personnel within each of the agencies by the inclusion of a cover letter to the agency contact explaining the need for representation from all racial and cultural groups.

When all applications are received at Teaching Research (TR), they will be classified according to area of interest (development or evaluation) and ranked within classification according to qualifications as indicated by information contained in the application and from personal references. An initial screening of applicants will be made; twenty candidates will be selected for each training area (development or evaluation). The forty candidates will attend a one-day conference designed to give them a comprehensive picture of the goals, training plan, agency involvement, benefits and sources of support.

A slide-tape presenting a profile of tasks performed by individuals holding positions in development and evaluation will be presented, followed by an indepth discussion of various types of positions in relation to the candidates' personal interests, backgrounds and experiences.

Individual interviews will be conducted during this conference by trained interviewers who will gather additional data regarding the applicants' present experiences, professional aspirations, anticipated future jobs and alternate possible jobs. A rough profile of each applicant's background, experience and aspirations will be developed, including a list of reference people who could be contacted for further information and for a transcript of his previous training.

A followup interview of all references for each candidate will be made by the program staff through personal or telephone contact. A folder containing the candidate's application, transcript of training, rough profile, reference narratives and the interviewer's assessment of the candidate's potential will be compiled.

Upon completion of the candidate's folder, a summary assessment will be made by a program staff member and presented to the total staff for classification and ranking. Each candidate will be classified according to development or evaluation and ranked as to training potential. Of the forty original applicants, twenty-five candidates will be selected as interim trainees' approximately half will be in development and half in evaluation. All applicants will be notified of their acceptance or rejection immediately following the selection.

The twenty-five interim trainees will then meet with the training staff for one week at Teaching Research in preparation for entering the training program and for the final screening of the candidates. Fifteen trainees and two alternates will be selected from the twenty-five candidates who participate during this five-day period. Activities planned for this week include orientation, completion of a self-rating competency profile, scoring of the profile, completion of a proposed profile, verification of competency self-ratings and the final determination of an entering competency profile, modified by the verification process.

These activities will be accomplished by the following procedures. Extensive interviews will be conducted with each trainee by members of the training staff to complete a competency profile on the candidate. This profile, when complete, will show a graphic display of the candidate's assessment of his present competencies in relation to the tasks specified for a competency area. An initial competency score will be calculated jointly by the candidate and the staff member as the result of this assessment. From this initial assessment, an exit profile or proposed profile will be developed by the candidate with the assistance of the training staff. This profile will satisfy the trainee's interests and also will achieve the demands of the training program.

The initial assessment of competencies then will be verified through a series of simulated problems which will be presented to the trainees for solution. These problems, formulated by TR staff, will be selected for each trainee to solve based upon his initial competency profile. After verification of the candidate's competency profile, a final summary evaluation will be made by a training staff member and the results presented to the total staff for ranking. The top fifteen candidates will be selected for induction as trainees, with two alternates chosen in case of non-acceptance among the first fifteen.

Trainee Monitoring

The central feature of the entire training program is the mechanism for guiding and monitoring trainee progress. This instrument is called the competency profile. A complete and detailed description of the competency profile and how it is used is included in Appendix D, with supporting materials in Appendices E and F. This section will summarize those Appendices.

A systematic display has been developed of those tasks which evaluators and developers are called upon to perform. These tasks will be linked to the products which would be produced by the performance of each task. Criteria will be developed for judging those products. (Examples of these products and criteria are in Appendix F.) The competency profile instrument provides a way of displaying each of the tasks of evaluation or development so that the capacity of any individual trainee to perform any of the tasks is readily discerned. On entering the program the competence of a trainee on each of the tasks of evaluation or development is assessed through an interview and through a sample set of situational assessment instruments.

Then the trainee, in conjunction with a training program advisor, will develop a proposed set of competencies toward which he will work in the training program. The proposed profile of competencies is developed in the light of information generated from potential employers about the competencies required for certain job openings in the field. This proposed or exit profile is displayed in conjunction with the trainee's entering profile so that the discrepancy between what he can do and what he desires to do is immediately apparent. This discrepancy is used in assigning trainees to training projects and to tasks within those training projects. A trainee is given a task which, if successfully completed, will give him a competency rating higher than his entering level and a step toward his exit profile. The trainee then receives training and supervision in performing that task. When successfully completed, this information is recorded on his individual competency profile. The data about the trainee's progress in accomplishing his exit profile will be generated and used at the field site. This information also will be transmitted to the training coordinating unit where an up-to-date file will be maintained on the status of each trainee. This file will be used to identify the trainees whose progress is seriously behind normal timelines so that additional support may be provided; it also will be used in determining when to shift trainees from one training project or one training site to another.

Resources have been allocated in the budget for accomplishing the remaining work in the development of the competency profile instrument. Much of the difficult conceptual work has been done. The remaining development tasks involve testing the instrument on a few "trial" trainees, generating complete sets of products to go with the tasks, generating and validating the criteria for judging these products, developing in complete form the interview protocol for generating a competency profile, and developing the simulated situational assessment problems for validating a trainee's self-reports of competence.

Further, the job profiles generated from a field survey need to be completed. The results of these surveys will be developed in summary form to guide the development of the trainee's exit profile. Finally, the data processing and information management procedures for monitoring trainee progress and for supporting decision making about trainee shifts need to be developed and tested.

A careful reading of Appendices D, E and F will indicate that the conceptual problems have been solved. Most of the practical problems of a competency based training program in evaluation and development which remain are straightforward, as one word evidenced by the examples provided in the appendices.

Job Development

In order to provide basic data for negotiating exit competency profiles, a survey will need to be conducted of potential employers to determine the qualifications of individuals who might be hired. As soon as the detailed interview protocol for the competency profile is developed and tested, this job market survey will be undertaken. The procedure used will ask a potential employer to identify an employee who, as nearly as possible, meets the characteristics of entry level employment for each of the required jobs. These employees then will be interviewed to develop their competency profiles, and these will constitute the survey. The results of this survey will be summarized and provided to trainees to help them make decisions on the kinds of exit competencies which would be most employable.

This procedure will be repeated quarterly, both to up-date the job profiles which are used by trainees in developing their own exit profiles, and to support the placement of trainees after the training program is completed. It is assumed that the data processing procedures for monitoring trainee progress will be readily used to carry out matching procedures between job openings and developing trainee competencies. The competency profile instrument can be readily translated into data for machine processing. Money has been provided for developing machine processing techniques for the program.

Provision of Credentials

All trainees in this training program will receive a complete detailed statement of the kinds of activities in which they have been involved and the kinds of competencies which have been developed. This form of providing credentials will need to be developed, though the competency profile provides an easy way to develop such a credential.

In addition, all of the initial trainees, and over the long run most trainees, will receive degrees or at least a substantial credit toward a degree from one of the university members of the consortium. It must be recognized that a great deal of work will need to be done to arrange for the granting of credit for the experiences of this program. Money and time have been provided during the preparation phase for doing such work. It is the clear intent of the consortium to move toward the granting of degrees on the basis of the kinds of training and the kinds of assessment delineated in this model. By insisting on high entry standards for trainees and by staffing the program and the sites with university personnel, it is anticipated that the work involved in getting the university to grant credit will not be overwhelming. However, in spite of the intent of the universities, it is difficult to move to officially received sanction until the program is funded. This will be one of the initial tasks during the operating phase.

Site Selection and Training Project Selection

During the first year of the program's operation three training sites will be established. It will be necessary for the consortium to select which three of the seven members will be the initial training sites. During the course of the training program, it can be anticipated that the number of sites will increase, possibly to seven, one for each member of the consortium. Procedures for site selection will need to be developed which can function initially and over time.

Within each training site a number of potential projects will be available as training projects. Procedures for project selection must be developed. Once training projects are selected, the quality of these projects as training contexts must be monitored. When one project terminates, a new project will need to be selected.

The final selection of the training sites and training projects within those training sites must be made by the Governing Council. The Governing Council will make this selection on the basis of information provided by the program director and matched to a set of criteria for site and project selection.

The site selection criteria are:

1. A site must be involved in educational evaluation, educational development, or both.
2. There must be staff commitment to training, and to the training model.

3. The staff must be sufficiently large and heterogeneous to provide exposure to various kinds of interpersonal, management and inter-institutional interactions and relationships.

4. A site must have staff who could qualify for the staff/trainer roles.

5. There must be evidence that a site will have a variety of projects continuously available for at least a year.

6. The projects available at a site should provide a wide variety of experiences.

7. A site must be sufficiently concentrated geographically to permit continuous monitoring of trainee activities and daily interaction among trainees and staff.

8. A site must be able to handle up to fifteen trainees.

9. The site must be able to provide for trainee financial support by paying for the work the trainee accomplishes.

10. A site must be able to assist in trainee placement after completion of the program.

11. A site must have space for the necessary offices, library, and other equipment for the program.

The criteria for project selection are:

1. The project must offer experiences the trainees need for competency development.

2. The organization and operation of each training project must be of high quality, judged on the basis of the skills and competencies the trainees are expected to develop.

3. The staff must be committed to training, and to the training model.

4. Members of the project staff must be able to be freed to fill the staff/trainer roles.

5. The training project staff must be available for special training related to the instructional model.

6. Slots must be available on the training project staff for trainees.

The data necessary for the Governing Council to make these choices will be developed during the preparation period of the project. Preliminary surveys have been conducted on the consortium institutions and possible training projects within them (Appendices G and H). It is the opinion of the Interim Governing Council that three members of the consortium are clearly ready to become training sites: the Portland Public Schools, the Northwest Regional Educational Laboratory and Teaching Research.

During the preparation phase the other four members of the consortium will be carefully studied, and possibly one of the three now designated sites might be replaced by one of the other settings. In particular, the University of Oregon and Oregon State University believe they can easily meet the criteria of a training site. In any case, the number of training sites is expected to increase during years two and three.

The major problem will be one of insuring that the training projects available in all of the institutions of the consortium provide a sufficient variety of tasks and experiences to meet the needs of the trainee. A more detailed instrument than the one used in Appendix H for carefully describing projects is in the process of development by another project (Schalock, 1970). That instrument will probably be used for gathering the data necessary for training project and site selection, assuming this training program is funded.

The Trial Projects

Before trainees can be placed on actual projects in operating contexts, they must receive some training to become familiar with the nature of the context and the training procedures to be used. In addition, staff of the actual training projects will also need such training.

This will be accomplished through the use of projects virtually created to provide an environment for familiarizing staff and trainees with the program's procedures. These will be actual projects, staffed by the training program staff and the trainees.

During the trial projects a full complement of activities of any training site will be undertaken: project work against timelines; use of the competency profile, assessment of competence, supervision, tutorial, counseling, seminars and use of instructional materials.

For the initial year,three trial projects will be used, probably located at three different consortium institutions. Nominations of possible trial projects will be received from the consortium institutions. Additional projects which each of the institutions would like to see done also will be derived. Once the needs of each of the projects have been assessed, these will be matched with the training needs of the trainees and the final selection made, subject to approval by the Governing Council. Those sites selected will be staffed by the same personnel as will be used during the regular training program, making whatever provisions are necessary to release such designated staff from their institutions to take part in the trial projects. The initial trial projects will last for five weeks, and take place during the summer.

Staff Training

Recruited staff members at all operational levels, regardless of their sophistication, will need special training in how to effectively instruct trainees in an operating context. Not only will staff training be necessary initially but staff turnover and program growth will operate to insure that staff training must continue.

Staff will need to be trained in a number of different kinds of activities. They must be trained in the overall purposes of the training program. They must be trained in techniques of interviewing, counseling and supervision. They must be trained to use the competency profile, both in terms of eliciting the requisite information from trainees, and using the profiles to determine the most appropriate training experiences for the trainees. They must be trained in situational assessment relative to the competency profile and in the use of the regular seminars to support task completion by a trainee. Finally, they must have complete familiarity with the training materials available and their use.

Staff training will be accomplished by workshops and concentrated two- and three-day training programs. Materials will be developed explicitly to train the staff in several of these techniques. During the trial project event, where trainees receive initial familiarity with the training model and the training program, the staff will be involved in testing and becoming competent with the procedures involved in the training model. Each of the major events has money and time allocated for material development and training.

Training Materials for Staff and Trainees

Much of the success of the program depends on flexible, easily used, materials. During the initial years of the training program a great many materials will have to be developed for trainees and for staff. The materials development tasks are of two types. For some of the competencies and skills of evaluation and development, there exist no instructional materials which are appropriate for training individuals. In these areas subcontracts must be let to instructional material developers who will develop packages to set specifications. However, for virtually all of the other competencies and skills of evaluation and development, instructional materials in existence will need to be modified to be appropriate for this training program. The kinds of modifications needed are substantial. This training program needs materials which are usable in operating work settings, that is, which do not require a classroom setting or a great deal of support equipment for their use. This program needs materials organized to teach trainees specific competencies and skills, whereas most instructional materials are not packaged in such discrete units. This program needs materials which enable a trainee to see a particular field experience in a broader context as an example of the class of possible experiences or problems. Most instructional materials are not designed to be linked directly to actual field experiences and thus do not have that capability. It is anticipated that modifying, reorganizing and restructuring many of the existing training materials will be substantially less costly than writing new ones. Budget money for writing new packages has been included only in those areas where existing instructional materials are not likely to be found.

There are important reasons why this much money must be appropriated in the first year of the training program for materials development. In the first place, the capacity to mount a maximally flexible training program depends on having virtually all of the instructional materials available for the initial group of trainees. Development cannot be spread over the three years of federal funding because the training program would not be fully functional until the end of the third year. The largest portion of the developmental work must be accomplished during the preparation phase of the program.

Program Procedures

No training program in a field setting has ever been mounted with the particular theoretical base of the one proposed. Therefore, a number of critical operating decisions must be made without benefit of empirical data, and a number of procedures must be specified for which there is no prediction of their probabability for effectiveness. The training program will carefully establish alternative procedures at different sites and evaluate the relative effectiveness of these different procedures on the basis of empirical data. Over the three years of initial funding, the most effective procedures should be developed in a form for general implementation.

The procedures which must be developed are those related to the operation of the training model. They encompass a wide range of topics: from orienting the trainee to a new institution rapidly to quickly identifying instructional material usable in field settings and related to the specific kinds of problems the trainee is having; from effectively using conferences and supervision to developing a quality seminar which is, nonetheless, responsive to the needs of the trainee; from developing a seminar which can deal with field related problems to handling the general issue of counseling as it is related to the learning of new roles.

A number of these procedures are likely to refer to such things as the relationships between the training site coordinator and the training project directors; between trainees and the training project staff; the decision making process and how difficulties in the operation of the training site are handled.

THE OPERATION OF A TRAINING SITE

Each training site is responsible for seven major functions: monitoring training progress, insuring that the trainees are making suitable progress toward their negotiated profiles, providing tutorial supervision and counseling, organizing the use of instructional materials and techniques on an individual trainee basis, running a content seminar to deal with the substantative content areas with which the trainees must become familiar, running a field problems seminar which deals consciously and explicitly with the problems of attempting to be trained in a field context, and training of staff through a variety of procedures.

The Structure of a Training Site

Each location will have a resident training site coordinator, who will hold an appointment of at least the Assistant Professor level with one of the universities in the consortium. Each of the designated training projects at a particular site will be given additional resources to free one staff member half-time to supervise trainees in the project. This will give each training project a staff/trainer, a person who simultaneously works on the project and supervises the work of the trainees. The site coordinator is responsible for: training and supervision of the staff/trainers, running the seminars for trainees which require them to reflect upon the work and experience they are doing, and maintaining working relationships with the training project directors. The assessment of competence at the site is the responsibility of the training site coordinator in conjunction with the staff/trainers and the training project directors. The relationship between the needs of the trainee and those of the project may come in conflict at times. Such conflicts will be negotiated between the project director and the site coordinator with resolutions determined jointly. If no agreement can be reached, the training site coordinator's view will prevail. In any conflict between what is good for the training project and what is good for the trainees, the needs of the trainee must ultimately prevail.

This priority is admittedly bizarre compared to the real world, for staff member concerns do not take precedence over project concerns ordinarily. However, the intent of creating special training projects is to provide precisely such protection for a trainee.

On the other hand, while the training program personnel will give top priority to the needs of the trainee, the welfare of the training projects and their directors must not be endangered. Alternatives must be provided to help in case the poor performance of a particular trainee jeopardizes a training project. Several mechanisms will provide this security. Staff from the training program will be on call to help out in any critical case. Moreover, trainees who have demonstrated skill at a task will be reassigned temporarily, if necessary, to help "bail out" the troubled project. Finally, the training program's advisors and consultants also may be used to provide help, if necessary. Training project directors will have at least these guarantees when they agree to have their project become a training project.

Each training site will be provided with sufficient support, both instructional materials and personnel, to mount a complete training program. Each site will build to a maximum size of fifteen trainees. The efficiency and quality of the training will increase as the number of trainees and the competence of the staff increases.

The Instructional Mechanisms

The major instructional mechanism for the training program is the training project. The emphasis is on the creation of a project which is a natural learning environment. All staff members in a training project would be expected to grow and to learn. A trainee would simply be a staff-member-in-training who, in the course of his project experience, would become more skilled in the jobs he does.

To facilitate the functioning of the training project as an instructional mechanism in its own right, the regular staff members on the project and its director will be given special training in running a learning project. In addition, the one staff member per three trainees who is released half-time to be the immediate supervisor of those trainees in that project experience will constitute an additional instructional mechanism designed to facilitate the trainee's learning while in the project context.

A training site will be so designed that seminars will be run regularly for up to fifteen trainees at any particular site. These seminars will have two major foci. The first seminar will deal with the problems involved in learning from an operating project. The second seminar each week will concentrate on:

1. Treating the substantive content necessary to solve the problems on which the trainees are working
2. Generalizing beyond those particular problems and experiences to see them as an instance of the general class of problems

These two seminars will meet once a week and will be directed by the training site coordinator. They will be taught by the supervisory staff and the training coordinator with the help of outside consultants and specialists.

Another instructional mechanism is the self-instructional materials which a trainee may study independently, study under direction or simply use in the performance of his duties. Every task and every function of development and evaluation will have at least some instructional materials related to that task, and each site will be equipped with a complete library of materials for learning how to do particular tasks.

Two kinds of specialists will be available from outside a training site to help in any particular training task: training specialists and training consultants. Training specialists will be individuals who are specialists in an area which the training staff knows will come up regularly in the course of the training program. These individuals will be paid a retainer (perhaps .1 FTE) on the understanding that they will be available at a week's notice to either teach a seminar course or work with individual trainees on some particular problem. Training consultants, on the other hand, are merely consultants who will be paid a regular consultant fee to appear and either teach a seminar class or work with individual trainees. Each training site coordinator will have available a certain amount of money to hire consultants.

It is anticipated that in some instances the most efficient and effective way for a trainee to receive a particular kind of training will be to enroll in a course somewhere other than at the training site. Every attempt will be made to keep this at an absolute minimum because it is inappropriate to the training model. It can be anticipated, however, that on rare occasions one or another trainee might be served best by some university or community college course. In such cases the trainee will be freed sufficiently to make use of this mode of instruction.

As a site develops, the expectation is that it will attract several kinds of personnel who presently are often not found in field settings. University professors might run projects in the field setting and become training project directors with trainees; graduate students in doctoral programs under such professors could work in the projects at the field site and receive money for their work; doctoral candidates actually engaged in dissertation research might use a project, or make their dissertation topic into a project; and undergraduates or early graduate trainees might work in the field setting to get some kind of feeling for what the professional role and responsibilities are of an educational evaluator or developer before they actually commit a number of years of training to such a direction.

Education badly needs field training sites which, in the final analysis, can be constrained to provide consistently good training and supervision as well as a powerful place for professionals to work. The creation of such centers is the intent of this training design.

INTEGRATIVE MECHANISMS

Consistent with the needs of the projects, every attempt will be made to involve evaluation and development trainees in the same project. Certainly, no training site will have all development or all evaluation trainees. Since the trainees are integrated at the site, the sitewide seminars will provide the major integrative mechanism for the training program.

A training seminar will be conducted by the training site coordinator for all of the training staff and the project directors involved in the training projects. Therefore, it can be expected this seminar or instructional program will indirectly provide an integrative mechanism as the staff members discuss various problems they face in dealing with the trainees, and various techniques they have used in dealing with them.

Trainees will regularly shift from one training site to another and be involved in different projects and different experiences. It can be anticipated that this will serve as a fundamental integrative mechanism, as trainees will bring their experiences with them when they go to another site and can be expected to share those experiences, approaches and techniques.

In many ways, the integration of the training programs will be facilitated by the fact that the function delineations of evaluation and development show a great deal of overlap. Because of this, the instructional materials in the library will overlap both evaluation and development, and trainees can be expected to share their learning from these training packages.

Finally, it can be anticipated that at irregular intervals, for a day or two, these central administrative institutions will have symposia or seminars or some other kind of total training program experience in which all trainees and all training staff will be brought to a central location for some common purpose. This is not a major integrative mechanism.

THE PHASES OF THE TRAINING PROGRAM

Over the three and a half years of federal funding the training program will change in four distinct ways:

1. The number of trainees will grow
2. The amount of development work will decrease
3. The coordinating unit's functions will be physically decentralized from one institution (Teaching Research) to the three university settings.
4. The number of training sites will grow
5. The number of training projects will grow

Projections are necessarily difficult, as much will depend on the level of funding, the cost control, and the difficulty of the development work. However, the following chart illustrates the expected phasing on which the maximum budget breakouts were based. (See the volume entitled Budget.)

	Phase 1 (Eighteen Months)	Phase 2 (Twelve Months)	Phase 3 (Twelve Months)
1.	Five per site	Ten per site	Fifteen per site
2.	90 percent of development work accomplished	10 percent of development work accomplished	No development work
3.	Located entirely at Teaching Research	50 percent decentralized	75 percent decentralized
4.	Three sites	Five sites	Seven sites (All consortium members)
5.	Two per site	Three or four per site	Five per site

A more detailed display of these phases is included in Appendix J.

OBJECTIVES, EVALUATION AND PERFORMANCE CRITERIA

The careful evaluation of the work of this training program is essential to its success. A complete list of objectives has been specified and included as Appendix A. The approach which will be used in actually establishing an evaluation plan is described in Appendix B for each set of objectives. In Appendix C some sample performance criteria are provided. The discussion below summarizes the points of the Appendices.

Objectives

Five major concerns with respect to the desired accomplishments of this training program have been identified. They are:

1. Success and effectiveness of the graduates
2. Costs and benefits of the program
3. Robustness of the design and the nature of its implications for the working environment
4. Intended changes in the educational community
5. Effectiveness of the key elements, materials and procedures within the program

Analysis of these concerns led to the identification of six clusters of specific objectives. These clusters of objectives, in effect, are logical groupings of the numerous questions raised by the major concerns. The six clusters of objectives are:

1. Impact objectives
2. Training objectives
3. Design objectives
4. Program objectives
5. Subprogram or activitity objectives
6. Management objectives

The impact objectives are: to increase the quality, appropriateness and quantity of work in educational RDD&E; to increase the number, improve the training and provide wider ranges and various levels of competencies of RDD&E personnel; and to achieve these ends by designing and establishing new patterns of training to which both the university and the nonuniversity members of our consortium will be committed.

The training objectives are: to train personnel as generalists and as specialists in educational development and evaluation, in appropriate proportions with respect to continually improved estimates of the local and national needs for such personnel; and to develop a continually improved and versatile classification of specific competencies in RDD&E, in terms of tasks within a problem-solving framework or conceptual scheme.

The design objectives involve the important features of the training model, including demonstration of competencies on real tasks in work settings; the establishment of the project as a training setting, and as the primary location for instruction; the commitment to individualization, negotiation and feedback; the integration of both technical and interpersonal competencies; the effective matching of trainees, trainers, projects and potential employers; and the development of commitment on the part of the trainees.

The program objectives refer to the sequential accomplishment of the major groups of directed activities of the program with respect to trainees. These groups of activities include recruitment, induction, experiences in "trial" projects, assignments to actual projects and placement.

The subprogram objectives are the specific tasks and activities which are to be performed in order to achieve the program objectives just discussed. The specific tasks include both developmental activities and continuing activities.

The management objectives derive from both the general purpose management in any program, and from certain purposes unique to this particular program. The general purposes lead to objectives regarding the setting of the conditions which let production occur. These objectives concern resource utilization, welfare of persons, decision making and information handling. The unique purposes specify objectives which state that the institutions of the consortium shall optimize their unique contributions while maintaining cooperation and commitment; that the required special combinations of trainees, learning conditions, learning resources and staff shall be brought together in timely fashion; and that a task force approach to top level management shall be employed.

Program Evaluation

The evaluation of this program amounts to the gathering of information with respect to the five major concerns of the program. It is the intent that the evaluation of the program, in terms of the six clusters of objectives previously broken out which cut across these five major concerns, will satisfy three criteria. First, the evaluation should provide periodically, to the various audiences, evidence of, and explanations for, the extent to which the objectives are being reached or modified. Second, the evaluation should provide continuous information for decision loops, leading to program modification such that the program will more closely approximate its objectives. Third, the evaluation should provide evidence on the basis of which other potential consortium members, and other training consortia, may determine the merits of replicating the program.

The detailed information about the planning of the evaluation of this program (found in Appendix B) specifies priorities, purposes, appropriate models and modified approaches. A format is specified for breaking out instrumentation; data collection and analysis; interpretation, distribution and decision procedures; and costs. Further planning will be needed and has been provided for, once the program is funded, to work out those specifications and to organize the special management, integration and quality control mechanisms applicable to the evaluation of a multiple site project with minimal central staff. Final decisions about the emphasis and the funding level of the evaluative effort will depend upon negotiations between the program director, the Governing Council, and the funding agency. Pending these decisions defining the evaluation problems, there is little point in writing detailed specifications.

Performance Criteria

The performance criteria for this program are the standards which the evaluation efforts will apply to the information which is gathered concerning the accomplishment of the objectives. Sample performance criteria are presented from objectives drawn from each of the six clusters of objectives. One of the first tasks of management, in cooperation with the consortium institutions, will be the delineation of what is judged to be an adequate and reasonable initial array of performance criteria associated with the more important objectives. As with the evaluation emphases, the determination of the detail and nature of the performance criteria will require negotiation between the program director, the Governing Council, and the funding agency.

THE BUDGET

The detailed budgets are included in the volume entitled Budget. That volume contains complete descriptions of every budget item. Therefore, it is unnecessary here to repeat those figures. However, some kinds of indices are useful:

COST INDICES

	Year 1	Year 2	Year 3
Total Cost Per Trainee	$ 38,196		
Minimum Projection		$ 14,715	$ 11,049
Maximum Projection		$ 12,369	$ 9,469
Total Cost Per Site	$190,980		
Minimum Projection		$147,146	$165,732
Maximum Projection		$123,693	$142,039
Total Operating Cost Per Trainee	$ 24,999		
Minimum Projection		$ 13,243	$ 11,049
Maximum Projection		$ 11,132	$ 9,469

The cost per trainee for the initial year is very high. This, however, is deliberate. The developmental preparation costs of this program are very high. The projections are, of course, somewhat speculative, but by year three the cost per trainee, as projected, would be in the neighborhood of $10,000 for twelve months.

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FINAL REPORT
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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Appendices
(Volume 3 of 4)

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/ DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

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December 18, 1970

U. S. Department of
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Office of Education
Research Training Branch
National Center for Educational Research and Development

SP005526

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PREFACE

THE RATIONALE FOR THE CONSORTIUM

WHEREAS:
The long-range purpose of this effort is to design new patterns for training RDD&E personnel in education, which will (1) provide more RDD&E personnel in education; (2) provide better trained RDD&E personnel in education; (3) provide personnel trained with much wider ranges and level of RDD&E competencies; and (4) become permanent training programs after the withdrawal of federal support.

The present consortium represents only three institutions (OSU, U of O, U of W) with the legal responsibility to maintain long-range formalized training programs as a primary emphasis.

The properties of the training model under design give sufficient promise of satisfying the intent of the funding agency to justify implementation.

1. An orientation to demonstrable competencies in actual work settings as the highest instructional priority
2. A focus on the project as a training setting
3. An emphasis on learning and instruction at project sites, from the very start of training
4. A commitment to negotiation and individualization with respect to procedures, materials and selections of subsets and sequences of tasks

The university members of the consortium are already heavily involved in field-oriented training programs in other areas of competence (principally teacher and administrator training) and regard this design as an extension of a direction in which they are already moving.

While not all worthwhile training programs can be or need be legitimized by a university, particularly short-term programs to develop specialized skills, the intent of this training program--the training of highly skilled generalists in development and evaluation for education--is worthy of university legitimizing and needs-training staff primarily available through universities, though reinforced by the special competencies of the staff of the training sites.

Proposals

It is proposed the consortium be established to implement and fully develop the training program as a model for training RDD&E personnel.

It is further proposed steps be taken from the onset of the federally sponsored period to establish the three universities as the future coordinators of the program for this consortium.

It is further proposed the specific roles for the other members of the consortium be developed with the goal in mind that by June 1973 the training programs will be fully operational from the three campuses. After this time the continued involvement of the nonuniversity members should be similar to that during the federally sponsored period, providing:

1. Training sites and training projects
2. Training staff
3. Materials development
4. Continued field-referenced influence on the training program to insure its continued relevance

In particular, it is proposed the field-based training centers be established during the federally sponsored period so they might be maintained as training centers after that period of federal sponsorship.

It is further proposed a reasonable schedule for phasing in the training system, from its initial protected implementation in a few institutions and for a restricted set of outcomes to its eventual implementation in the universities and a full set of potential employer field institutions, be established for the three-year period of full federal funding.

In view of the preceding statements, and given its staff competencies, historic interest in the development of this kind of training model, and the consistency of this kind of activity with the mission for which it was originally created as part of the state system of higher education, it is proposed that Teaching Research be identified as the grant recipient and assume responsibilities for coordinating the consortium activities during the period of federal sponsorship.

At the conclusion of the federal funding, the question will be reviewed of whether the universities shall continue to act through the mechanism of a formal consortium or merely cooperate with regard to the training programs and the nonuniversity training sites. A decision will be reached in terms of experience gained during the life of the project.

APPENDIX A

OBJECTIVES OF THE TRAINING PROGRAM

Analysis of the discussion of program rationale and framework (in the Volume entitled Description of the Training Program, Sections A and B) indicates that there are six clusters of objectives of this training program:

1. Impact Objectives, or long-range intents of the Consortium
2. Training Objectives, including appropriate numbers of trainees in RDD&E, specification of the sets of tasks in RDD&E, and the utilization of the sets of tasks
3. Design Objectives, referring to the properties of the model and their anticipated benefits
4. Program Objectives, the objectives of the training program as a series of specific events
5. Subprogram Objectives, the objectives of the tasks or activities which contribute to the achievement of the objectives of the major events of the training program (the Program Objectives)
6. Management Objectives, referring to the timeliness and effectiveness of the utilization of manpower and resources to achieve the other objectives

The remainder of this Appendix will be devoted to a presentation of the objectives in each of the six categories which have been identified.

Impact Objectives

These objectives are derived from the statement of the long-range intents of the consortium, Appendix H, with respect to the program.

1.1 To increase the quality of work in educational RDD&E

1.2 To increase the appropriateness, as to local and national priorities, of work in educational RDD&E

1.3 To increase the quantity of work in educational RDD&E

1.4 To increase the number of RDD&E personnel in education

1.5 To provide better trained personnel in educational RDD&E

1.6 To provide personnel trained across wider ranges and more numerous levels of RDD&E competencies

1.7 To achieve these ends by designing and establishing new patterns, and special sites within existing institutions, for training such personnel

1.8 To establish and achieve university commitment to permanent training programs of this nature, independent of full federal support for such programs, and that to do this the prerequisite steps include:

    1.8.1 That, initially, a centralized training coordinating unit will be necessary if the program is to be developed and made ready for a transition to decentralized operation, and

    1.8.2 That appropriate regular staff members of the consortium institutions will be involved by being rotated through designated program job positions from the beginning of the program.

1.9 To achieve continued involvement of the nonuniversity members of the consortium, including their provision of:

    1.9.1 Suitable training sites and training projects

    1.9.2 Competent and committed training staff

    1.9.3 Materials development expertise

    1.9.4 Continued field-referenced influence on the training program to insure its continued relevance

    1.9.5 Instructional and program evaluation

Training Objectives

The preceding set of objectives, the impact objectives, refer to relatively long-range, or distant program accomplishments. The present set of objectives, the Training Objectives, refer to relatively short-range, or proximal, accomplishments, those of the trainees and their competencies, which are the desired consequences of the application of the training model.

2.1 To train personnel for educational development and evaluation in appropriate proportions with reference to local and national needs

2.2 To train personnel as generalists and as specialists, in appropriate proportions with reference to local and national needs

2.3 To develop continually improved estimates of the appropriate proportions of generalists and specialists needed in educational development and evaluation

2.4 To develop and continually improve a classification of specific competencies in RDD&E which will be:

  2.4.1 Tightly coupled to observable products

  2.4.2 Exhaustive

  2.4.3 Illustrate parallel competencies among RDD&E

  2.4.4 Identify competencies which are specific to RDD or E

2.5 To develop and continually improve a conceptual structure of the content of the training programs so that any particular trainee's profile, group of trainees' profiles, job description or cluster of job descriptions will be describable in terms of tasks. (The basic lists of tasks are to be used as a common denominator for various aspects of the training program. These lists of tasks and their uses are further described in Appendix D, The Competency Profiles, and in Section E of the Volume entitled Despription of The Training Program.)

2.6 To develop, maintain and improve lists of tasks in educational RDD&E consistent with 2.1, 2.2, 2.3, 2.4 and 2.5, which will be:

2.6.1 Exhaustive

2.6.2 Made up of tasks small enough to be substantially independent of each other, and produce separable, visible and identifiable products

2.6.3 Made up of tasks large enough so as to avoid the separate listing of highly correlated subtasks

2.6.4 Cover a range sufficiently robust to accommodate, as subsets, the particular sets of tasks emphasized by various authors in reference to diverse problems, products and contexts

2.6.5 Responsive to diverse inputs, such as:

2.6.5.1 Descriptions of current jobs

2.6.5.2 Forecasts of projected jobs

2.6.5.3 Predictions of technical trends

2.6.5.4 Considerations of social and educational needs, values and priorities

Design Objectives

These objectives refer to properties of the theoretical framework of the program, as described in Section B of the Volume entitled Description of the Training Program.

3.1 To maintain an orientation to demonstrable competencies in actual work settings as the highest instructional priority

3.2 To focus on the project as a training setting

3.3 To emphasize learning and instruction at special project sites, from the very start of training

3.4 To develop a commitment to negotiation, individualization and feedback with respect to procedures, materials and selections of subsets of tasks and sequences of tasks

3.5 To establish validity between what is provided in training and what is required on the job

3.6 To depend consistently upon performance data

3.7 To define performances in observable terms for assessment

3.8 To integrate the technical competencies to be learned

3.9 To integrate the technical competencies to be learned into effective interpersonal performances in real contexts

3.10 To provide evidence to the trainee, the training program and potential employers as to what the trainee can do

3.11 To provide assistance to the field sites and employers in making effective use of what the trainee can do

3.12 To develop in the trainees commitments to the impact objectives and the training objectives

Program Objectives

These are the objectives of the training program as a series of specific events, with respect to trainees, during the first eighteen months of operation.

4.1 To achieve recruitment of trainees

4.2 To implement an induction process

4.3 To carry out the trail project experiences

4.4 To carry out the actual project assignments

4.5 To carry out the placement process

Subprogram Objectives

The Subprogram Objectives are the specific tasks to be performed in order to achieve the five Program Objectives presented in the preceding section.

- 5.1 Trainee Recruitment
  - 5.1.1 Development Tasks
    - 5.1.1.1 Brochure
    - 5.1.1.2 Preliminary interview form
    - 5.1.1.3 Slide-tape presentation
  - 5.1.2 Continuing Tasks
    - 5.1.2.1 Distribution of Brochure (and making personal contacts)
    - 5.1.2.2 Initial screening
    - 5.1.2.3 Initial conference
    - 5.1.2.4 Followup dossier completion on trainee
    - 5.1.2.5 Interim selection of trainees and alternates
- 5.2 Induction; screening of 25 applicants to 15 initial trainees
  - 5.2.1 Development Tasks
    - 5.2.1.1 Competency profile instrument
    - 5.2.1.2 Field survey to derive the employer-specified competency profile
    - 5.2.1.3 Profile validation
    - 5.2.1.4 Slide-tape refinement
    - 5.2.1.5 Instructional materials for training staff
    - 5.2.1.6 Instructional materials for trainees and situational assessment instruments

- 5.2.2 Continuing Tasks
  - 5.2.2.1 Selection and training of training staff
  - 5.2.2.2 Induction interview
  - 5.2.2.3 Final selection
- 5.3 Trial Projects
  - 5.3.1 Development Tasks
    - 5.3.1.1 Field problems seminar development
    - 5.3.1.2 Conference and supervision training materials development
  - 5.3.2 Continuing Tasks
    - 5.3.2.1 Selection or creation, staffing and planning of the trial projects
    - 5.3.2.2 Site arrangements
    - 5.3.2.3 Scheduling seminars, conferences, staff meetings
    - 5.3.2.4 Seminar planning
    - 5.3.2.5 Operation of content seminar
    - 5.3.2.6 Operation of field problems seminar
    - 5.3.2.7 Operation of conference and supervision training
    - 5.3.2.8 Assessing of competence in context
    - 5.3.2.9 Operation of trial project
- 5.4 Actual Project Assignments
  - 5.4.1 Development Tasks
    - 5.4.1.1 Procedure for describing project in detail
    - 5.4.1.2 Maximum fit computer matching program
    - 5.4.1.3 Orientation program for each site
    - 5.4.1.4 Project site arrangements

5.4.2 Continuing Tasks

  - 5.4.2.1 Assembly of detailed information on each trial project
  - 5.4.2.2 Matching of trainees to available experience
  - 5.4.2.3 Project site operation

5.5 Placement Process

- 5.5.1 Development Tasks
  - 5.5.1.1 Certification standards (program)
  - 5.5.1.2 Certification standards (academic)
- 5.5.2 Continuing Tasks
  - 5.5.2.1 Job market survey
  - 5.5.2.2 Placement of certified trainees

Management Objectives

These objectives refer to the timely use of appropriate manpower and resources, within the constraints of the personal and professional welfare of the staff and trainees, to accomplish the training coordinating unit functions, and the training site functions.

The management objectives for these functions with reference to the management plan (the operation of the training program) will have to answer the usual kinds of monitoring and adaptive questions:

A. Are the designated people performing their parts of the functions? Are they doing these effectively? If not, why not? What changes should be made?

B. Are the functions being done on time? If not, why not? What changes should be made?

C. Are the functions and schedules reasonable?

Stated as objectives, these generic management concerns are as follows:

6.1 That all resources will be used in an effective and appropriate fashion

6.2 That the professional and personal welfare of all persons involved with the project will be enhanced

6.3 That the necessary working conditions and procedures will be established to accomplish the necessary functions

6.4 That critical events in the planned sequence of the program activities will be monitored in order that potential areas of difficulty may be identified and dealt with through shifts of resources and modifications of plans before the difficulties jeopardize the program.

In addition to the generic requirements of program management, there are three major requirements which are unique to the management of this particular program. Stated as objectives, these are:

6.5 That the institutions of the consortium optimize their unique contributions while maintaining cooperation and commitment

6.6 That the required complex and shifting combinations of trainees, learning conditions, learning resources, and staff be brought together in timely fashion in the day-to-day, week-to-week operation of the training program

6.7 That the breadth of training of the staff be enhanced by a task-force approach to management and administration of the training program

Training Coordinating Unit Functions

These functions, with various responsibilities apportioned in the management plan for development of procedures and operation of the procedures, include:

1. Consortium procedures
2. Site selection and termination procedures
3. Training project selection and termination procedures
4. Training materials for staff and trainees
5. Program procedures
6. Staff selection and termination procedures
7. Staff training procedures
8. Trainee monitoring and termination procedures
9. Traineeship scheduling
10. Matching trainees to known job openings
11. Fiscal control
12. Clerical and technical services
13. Trainee selection procedures
14. Trainee induction procedures
15. Job development procedures
16. Credential procedures
17. Public relations and dissemination procedures

The personnel involved include:

Program Director
Assistant Director for Monitoring and Fiscal Affairs
Assistant Director for External Field Relationships
Clerical/Technical
Governing Council
Internal Review and Advisory Committee (IRAC)
Training Specialists
Training Consultants
Training Site Coordinators only (not as part of IRAC)

Training Site Functions

These functions, with various responsibilities apportioned in the management plan for development, evaluation, and operations, include:

1. Training monitoring
2. Trainee instructional materials (nonseminar)
3. Trainee content seminar
4. Trainee field problems seminar
5. Trainee supervision/tutorial
6. Staff training
7. Clerical, technical support
8. Other trainee instructional experiences

The personnel involved include:

Training Site Coordinator
Training Site Clerical/Technical Support Personnel
Training Project Director
Training Project Staff/Trainers
Training Project Staff (Nontrainers)
Training Project Trainees (Staff members in training)

Model for Further Evaluation Planning

In the construction of more detailed evaluation plans, the objectives will be considered, in order of their priorities, analyzed in terms of the following categories, and the required resources identified. Then, evaluation activities will be selected within the constraints of time, money, manpower and schedules; PERT charts for the evaluation will be drawn up.

Evaluation Planning Categories

1.1 Objective
1.2 Performance Criteria
1.3 Applicable to
1.4 Relevant conditions
1.5 Intents and standards

2.1 Decisions to be made
2.2 Who will make the decisions
2.3 When will the decisions be made
2.4 What information is required

3.1 What are the indicators
3.2 What method of observation
3.3 What sampling procedures
3.4 What population

4.1 What kind of instrument
4.2 Acquire or develop
4.3 Procedure for acquisition or development

5.1 When are the data collected
5.2 By whom
5.3 Actual sample

6.1 When are the data analyzed
6.2 By what procedures
6.3 By whom

7.1 When are the results interpreted
7.2 By whom

8.1 When are summaries of results and interpretations to be ready
8.2 For whom
8.3 How distributed
8.4 By whom

9.1 Who monitors this evaluation
9.2 By what means
9.3 When

10.1 Who evaluates this evaluation
10.2 By what means
10.3 When

11.1 Summary of manpower costs, by section
11.2 Summary of dollar costs, by section

APPENDIX B

EVALUATION STRATEGY AND PLAN

In Appendix A, the preceding Appendix, the important points or questions about the programs were stated as objectives and grouped into six clusters: impact, training, design, program, subprogram, and management. In the present Appendix, the topic is how we will get and use evidence regarding these questions. In the following Appendix, Appendix C, the concern is with the performance criteria which the evaluation efforts will apply to the information which is gathered with respect to the accomplishment of the objectives.

With respect to evaluation of this training program, it is clear that management, having only finite resources, must make decisions about the relative importance, priority, and practicality of obtaining various kinds of information regarding the numerous objectives. There are five kinds of information which the Core Design Staff, in consultation with members of the Working Council, believes to be most important. Using these suggestions, management will have to determine which specific objectives will receive what amount of evaluation attention and resources.

The five kinds of information are:

1. How well do the graduates do, immediately after training; and after some time has elapsed? How well do our indicators of competence at mid-program, predict competence immediately post-program? Competence at long-term follow-up? How well are our indicators of competence immediately post-program, related to later performance.
2. What are the costs of the program, and what are its benefits?
3. Will the program hold up and hold together as it develops and decentralizes? What is the nature of the environment it creates for the staff and trainees in and around the program?
4. Is the educational community (the universities; schools; the R & D organizations; the state departments of education) different, in traceable and desirable ways, as a consequence of the program?
5. What evidence is there of the effectiveness of the key elements, materials and procedures within the program?

The remainder of this Appendix will be devoted to an initial specification of how such evaluation information will be gathered, on both a short-turn-around and a long-term basis. Evaluation staffing and management will be briefly described; distinctions will be made among adaptive, formative, and summative evaluation; evaluation models for application to each of the six clusters of objectives will be presented; a model format for further evaluation planning is given; and a check list of program aspects is provided for reference. In the following Appendix (Appendix C), there is a discussion of what we will accept as evidence of positive outcomes, that is, the standards or performance criteria regarding the program which will be applied to the evaluative data which is gathered.

At its present level of development the evaluation plan for this program specifies priorities, purposes, and approaches. It does not specify instrumentation; data collection and analysis procedures; interpretation, distribution, decision procedures; and cost breakouts. Nor does it describe the nature of the special management, integration, and quality control arrangements with respect to evaluation which are necessary in a program having multiple sites and minimal central staff.

The reason that these specifications are not yet written is that until and unless the program is approved and funding is negotiated, it is not known what level of resources will be available for evaluation activities. Although carrying the planning further than its present stage is more a matter of routine detailing than it is a matter of original definition, nonetheless, in a program of this size and context, considerable labor would be involved, and any sizeable changes in funding level and/or work program would require scrapping most of the detail and doing it all over again. We have therefore chosen to devote the remaining resources of our planning grant to other areas of planning, and intend to complete the evaluation detailing during the first few months of the initial funding period of the program, when the program itself will be better defined. This decision was taken by by the Core Design Staff in consultation with the Director of the Evaluation Program at Teaching Research, with reference to that group's experience and expertise in the phasing of the various stages of evaluation planning during the development of major programs.

Evaluation Staffing and Management

The total manpower resources available at the sites for evaluation planning, development, operations and monitoring during Year One, amount to approximately 1 FTE, not including assistance from trainees. In addition, approximately one-half the time of the Program Director will be devoted to evaluation. Year One will see heavy demands for evaluation planning and development. In subsequent years, the evaluation staffing will be decreased and decentralized. In the first year, however, site personnel with evaluation responsibilities will work very closely with central management. The planning and development will take place in the framework of the six sets of objectives, their sets of performance criteria, the six models for evaluation and the model for further evaluation planning. Responsibilities for development and implementation of evaluation are allocated in the charts illustrating training coordinating unit functions and site functions. All aspects of the program's operations will be logged or recorded systematically, in order to provide basic data as to what is planned, what is done, and what happens.

It is expected that limitations of manpower and budget in the first year will demand that a respectable segment of the evaluation effort be devoted to developing the baseline materials and procedures by which to evaluate the impact objectives. This accomplished, the program should be able to case a wider evaluative net in subsequent years. Fortunately, many of the training objectives and the design objectives are so tightly coupled to the impact objectives that real limitations on evaluation resources will be less detrimental, in terms of scope of coverage, than is usually the case.

Evaluation activities will contain, by necessity, elements of adaptive, formative and summative evaluation, as outlined subsequently. These activities will be within the capacity of the staff previously described; will be placed within an array describing all program aspects susceptible to evaluation; and will employ adaptations of the appropriate evaluation models. The decision-making approach for the use of evaluation information (results and interpretations) will follow that of Provus, (1969),in the short run, and will follow that of Stake, (1967), in the long run. The procedures and plans described should be adequate to meet the internal needs of the program as well as to answer the sponsor's concerns for feedback for program modification. In addition, they will provide useful information regarding the merits of the program for replication.

Stated as objectives, the evaluation of this program will meet the following criteria:

1. To provide periodically, to the various audiences, evidence of, and explanations for, the extent to which the objectives are being reached or modified.

2. To provide continuously information for decision loops leading to program modifications such that the program will more closely approximate its objectives.

3. To provide evidence on the basis of which other potential consortium members, and other training consortia, may determine the merits of replicating the program.

Types of Evaluation to be Used

Three types of evaluation will be employed in examining the training program:

1. Adaptive evaluation will be used for the monitoring, analyzing and adjustment of operations. The focus will be upon smooth functioning of relationships involving online logistics, procedures and arrangements regarding the management objectives and the subprogram and program objectives. In most cases, the scheduling of this kind of evaluation will be on short cycles of a few days to a few weeks.

2. Formative evaluation will be used for the cyclic improvement of components. The focus will be on trainee outcomes. The scheduling will be periodic, matched to the schedule for repetition of the particular component. The major concern is for assessing and developing the relationships among the six levels of objectives. Some instances of subjects and activities for formative evaluation would include an instructional package, a field problems seminar design, an experience in an instructional package and its consequences for field performance of a task, a competency assessment instrument, or a competency assessment procedure.

3. Summative evaluation will be used for conclusions about program results. The scheduling will be partly matched to the natural cycles and recurrences of program objectives and subprogram objectives, and partly matched to quarterly and annual reporting dates to the various audiences. There are four elements in a summative evaluation effort:

    a. Relevance. How well are program activities related to program outcomes?

    b. Strength. How far toward stated goals are various groups moved by the activities of the program?

    c. Reliability. How consistently can this program, implemented as planned, make the same changes in the same type of trainees and other audiences?

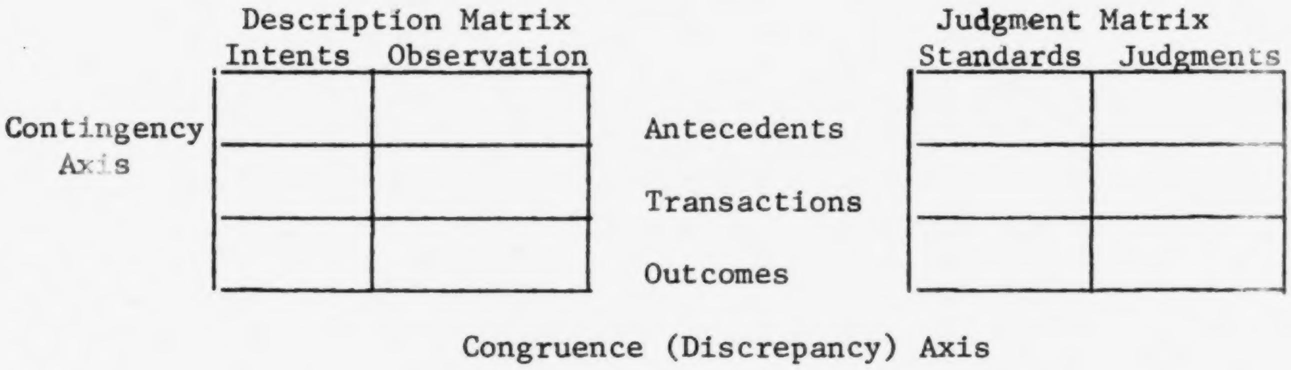
    d. Robustness. How powerful is the program in yeilding the desired results when the inputs and processes are varied?

Evaluation Models to be Applied to Each of the Six Clusters of Objectives

In each of the following instances it should, of course, be recognized that the models will not be followed rigidly or arbitrarily. Rather, the models identified will be used to guide the development of the actual evaluation plan.

1. Model for Impact Evaluation

   The evaluation approach will be based on Stake's model (1967).


Description Matrix
Intents
Observation
Judgment Matrix
Standards
Judgments
Contingency Axis
Antecedents
Transactions
Outcomes
Congruence (Discrepancy) Axis

2. Model for Training Evaluation

   The evaluation of the training objectives also will follow the Stake model.

3. Model for Design Evaluation

   The evaluation of the design objectives will follow the Stake model.

4. Model for Program Evaluation

   The evaluation of the program objectives will follow Stufflebeam's context, input, process, product (CIPP) model (1968), which is geared to the provision of timely and credible information to the decision-maker for practical decision-making in context, yet has a "grain" or periodicity which is not so detailed as to be overwhelming in terms of demands on the evaluator and the decision-maker regarding the five overall program objectives or "events" of this program. This program evaluation, using the CIPP model, will be basically a monitoring and reporting function.

5. Model for Subprogram Evaluation

The evaluation of the subprogram objectives will be designed for assistance of short-term decision-making following the questions, criteria, information, decisions (QCID) paradigm of the discrepancy model of Provus (1969):

a. The evaluator will formulate the basic Questions

b. The manager will identify the Criteria

c. The evaluation staff, program staff, agency staff and trainees will obtain the needed Information and prepare analyses and suggestions.

d. The manager will make the Decisions. For the purposes of this program, a further Stake-like stage will be included. It is illustrated below.

e. The evaluator, the manager and the other parties to the project will periodically make judgments as to the worth, appropriateness and adequacy of management decisions and of evaluation information.

6. Model for Management Evaluation

The evaluation of the management objectives will follow the same model as that for the subprogram objectives, but will focus on appropriateness of timing and effectiveness of utilization of resources involved in decisions and operations rather than on the objectives of the specific activities.

Model Format for Further Evaluation Planning As the Project Becomes Operational

In the construction of more detailed evaluation plans, the objectives will be considered in order of their priorities, analyzed in terms of the categories, and the required resources identified. Then, evaluation activities will be selected within the constraints of time, money, manpower and schedules; PERT charts for the evaluation will be drawn up and coordinated with management planning.

Evaluation Planning Categories

1.1 Objective
1.2 Performance Criteria
1.3 Applicable to
1.4 Relevant conditions
1.5 Intents and standards

2.1 Decisions to be made
2.2 Who will make the decisions
2.3 When will the decisions be made
2.4 What information is required

3.1 What are the indicators
3.2 What method of observation
3.3 What sampling procedures
3.4 What population

4.1 What kind of instrument
4.2 Acquire or develop
4.3 Procedure for acquisition or development

5.1 When are the data collected
5.2 By whom
5.3 Actual sample

6.1 When are the data analyzed
6.2 By what procedures
6.3 By whom

7.1 When are the results interpreted
7.2 By whom

8.1 When are summaries of results and interpretations to be ready
8.2 For whom
8.3 How distributed
8.4 By whom

9.1 Who monitors this evaluation
9.2 By what means
9.3 When

10.1 Who evaluates this evaluation
10.2 By what means
10.3 When

11.1 Summary of manpower costs, by section
11.2 Summary of dollar costs, by section

APPENDIX C

PERFORMANCE CRITERIA

In this Appendix, samples of performance criteria for the six clusters of objectives (Appendix A) are presented.

One of the first tasks of management, in cooperation with the consortium institutions, will be the initial delineation, in full, of the performance criteria. By the end of the first eighteen months of operation, it is anticipated the criteria will be tight in the sense of setting standards which would be applicable in most instances to a high proportion of the trainees. The Core Design staff believes that the setting of these criteria is the prerogative, and the problem, of program management, in negotiation with the funding agency.

Performance Criterion for an Impact Objective

Sample Performance Criterion for Objective 1.5

The graduates will receive jobs which are appropriate to their competencies and to the intents of the training program. The performance of the graduates will be better than the performance of graduates of conventional training programs placed in comparable jobs, and the rate of increase in responsibility, moving up to management functions, will be greater.

Combining the graduates of the first three years of this training program, 80 percent will be actively employed in educational development or evaluation for at least two years after graduation from the training program. Of that number, at least 75 percent shall meet criteria on situational assessment instruments and field reports regarding tasks and functions, while no more than 50 percent of a comparable control group with alternative, equally recent, forms of training meet the same criteria.

The proportion of graduates performing a specified set of management functions one year and two years after graduation shall be at least 30 percent greater than the proportion of comparable control individuals.

Performance Criterion for a Training Objective

Sample Performance Criterion for Objective 2.1

The relative proportions of trainees in development and evaluation programs, respectively, shall not deviate by more than 25 percent from the proportions estimated from the most recent available evidence as to regional needs, nor by more than 40 percent from the proportions estimated from the most recent available evidence as to national needs. Any deviations beyond these tolerance ranges shall be justified in terms of availability or lack of availability of trainees, sites, trainers, materials or employers.

Performance Criterion for a Design Objective

Sample Performance Criterion for Objective 3.3

No more than 20 percent of the learning and instruction time of 80 percent of the trainees will be spent beyond a 20-mile radius of the project site, and no more than five percent of the learning and instruction time of 90 percent of the trainees will be spent beyond a 200-mile radius of the project site.

Performance Criterion for a Program Objective

Sample Performance Criterion for Objective 4.1

Ninety percent of the component tasks (the subprogram objectives) will be completed within ten days of their deadlines; 100 percent of the component tasks will be completed within 15 days of their deadlines.

Performance Criterion for a Subprogram Objective

Sample Performance Criterion for Objective 5.1.2.2

The preliminary interview form will include information regarding present experience, professional aspirations, anticipated future jobs, and alternative possible jobs. It will not take longer than 90 minutes for completion by 75 percent of the interviewees interviewed by 100 percent of the interviewers. It will not take longer than 180 minutes for completion by 90 percent of the interviewees.

APPENDIX D

COMPETENCY PROFILES

Section 1. Purposes of the Competency Profiles

A Definition of Competence

The purpose of the training program is to increase to an acceptable level the competence with which the trainee performs the tasks required of those who fill positions in his chosen field. The problem of measuring and certifying competence has been, therefore, a central concern during the design phase.

The position is taken in this design (see Appendix E) that any project, whether a development project or an evaluation project, may be seen as requiring similar classes of general problem-solving activities. Eleven such categories have been identified (Table 2 of Appendix E). Each problem-solving category or function refers to a list of tasks to be performed. Some tasks are needed in both development and evaluation; some are unique to development or to evaluation. Each task has been defined in such a way that some product can be derived (Table 4, Appendix E). By examining the quality of a product produced, one may make a judgment as to the level of competence of the producer. For example, a trainee's competence at displaying data graphically can be demonstrated by examining graphs and tables he has produced while working on a project.

A major requirement confronting such a scheme is the need for a system by which the products created by a trainee are examined in order to certify that he has reached a particular level of competence. One method that might be considered would be the development of detailed, objective criteria by which the hundreds of products could each be judged. There are two problems with this approach. First, the conditions under which the product is produced would have to be standarized. This is not possible given the field oriented nature of the program. The program is deliberately designed to expose the trainee to the nonstandardized conditions of actual project operation. Second, the development of detailed criteria by which to judge each of the large numbers of products would be a costly process. Norms would need to be established which would require repeated field tests on large numbers of subjects, possibly more than the numbers of persons seriously engaged in educational change activities.

The alternative solution that has been adopted for the present program is to establish a simple binary judgement of quality with regard to any product produced by the trainee--acceptable or unacceptable. A small number of criteria will be set for each product. A trainee's competency will then be certified with regard to the level of supervision required in order for him to produce an acceptable product.

This approach assumes that any trainee accepted into the program will eventually be able to produce an acceptable product for any task, provided he is given constant supervision. As he advances through the program he will advance in level of competence as he becomes able to produce an acceptable product with moderate supervision. He will be defined as having reached the highest level of competence when he is able to perform the task with little or no supervision.

Some thought has been given to additional levels. It should be noted that a major factor in deciding to use the level of supervision at which a trainee can produce an acceptable product as the criterion for judging competence is that this procedure can be made operational by the time the first trainees enter the program in September. The requirements are that level of supervision be defined in measurable terms and that the supervisor receive special training in judging products acceptable or unacceptable. Although the procedure, as stated, can go into operation at the beginning of the program, it is anticipated that it will undergo refinement as the training program progresses.

To put the procedures into operation, it will be necessary to establish two judgmental criteria. The first is the acceptability of products _per se_. This judgment will have to be made on-site by the training program staff. The trainee's supervisor will have the primary responsibility. The training program staff will provide each supervisor with examples and descriptions of both acceptable and unacceptable products as judged by the program staff. The examples will be used as standards against which he can judge each trainee's product. Moreover, the program staff will review samples of judgments made by each supervisor and provide him feedback on how similar his judgments are to a consensus of judges.

The second class of judgments that must be made is the degree of supervision under which a trainee produces a product. Procedures for specifying "minimal", "moderate", and "constant" supervision will be established by the training staff. While the work on setting these standards will not begin until the program is funded, it is anticipated that degree of supervision on a product will be defined by percentage of working time under actual supervision while producing the product.

The Competency Profile Format*

In order to assess, develop, and monitor trainee competence, a convenient and intelligible display format is needed. Such a format is shown as Figure A. The _horizontal axis_ of Figure A refers to the eleven problem-solving functions involved in educational development. (These eleven functions are derived on the basis of a rationale given in Sections 1-4, Appendix E; the functions themselves are presented in Table 5 of Appendix E). The _vertical axis_ of Figure A refers to the specific tasks included in the eleven problem-solving functions as these functions are applied to educational development. (The tasks displayed on the vertical axis are completely listed, using the same numbering system, in Section 5 of Appendix E).

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*The examples in this Appendix are all taken from the educational development portion of the proposed program, though the concepts apply equally well to educational evaluation training.

There are no necessary relationships between the tasks of the various functions, although at first glance the display format of Figure A may suggest this. Each cell has its own unique task.

Each square, or cell, of Figure A, refers to a particular task in educational development. If the cell is shaded, that means that it has been determined that the task referred to must be performed independently, or with minimal supervision. If the cell is not shaded, that means that it is acceptable if a trainee can perform the task with periodic supervision.

The processes by which such determinations are established, and the various ways in which such profiles are used and modified during the course of a trainee's experience in the training program, are discussed in the remainder of this appendix.

The general pattern of use of the profiles is depicted in Figure B.

FIGURE A

THE COMPETENCY PROFILE FORMAT*

Problem Solving Functions in Educational Development (See Appendix E Section 4)

Specific Tasks (See Appendix E, Section 5)	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	2.1.1	2.2.1	2.3.1	▨	▨	2.6.1	2.7.1	2.8.1	▨	2.10.1	▨
2	2.1.2	2.2.2	2.3.2	▨	▨	▨	2.7.2	2.8.2	▨	2.10.2	▨
3	2.1.3	2.2.3	2.3.3	▨	▨	▨	2.7.3	2.8.3	▨	2.10.3	▨
4	2.1.4	2.2.4	2.3.4	▨	▨	▨	2.7.4	▨	▨	2.10.4	▨
5	▨	2.2.5	2.3.5	2.4.5	2.5.5	▨	▨	▨	▨	2.10.5	▨
6	▨	2.2.6	2.3.6	▨	2.5.6	▨	▨	▨	▨	2.10.6	▨
7	2.1.7	2.2.7	2.3.7	▨	▨	▨		▨		2.10.7	▨
8	▨	2.2.8	2.3.8	▨	▨	▨				2.10.8	▨
9	▨	2.2.9	2.3.9		▨	2.6.9				2.10.9	▨
10	▨	2.2.10	2.3.10	▨	▨	2.6.10				2.10.10	
11	2.1.11	2.2.11	▨	▨	▨	2.6.11					
12	2.1.12		▨	▨	▨	2.6.12					
13	▨		▨	▨	▨	2.6.13					
14	2.1.14		▨	▨	▨	2.6.14					
15	▨		▨	▨	▨						
16			▨	▨							
17			▨	▨							

☐ May be performed with periodic supervision

▨ Must be performed with minimal supervision

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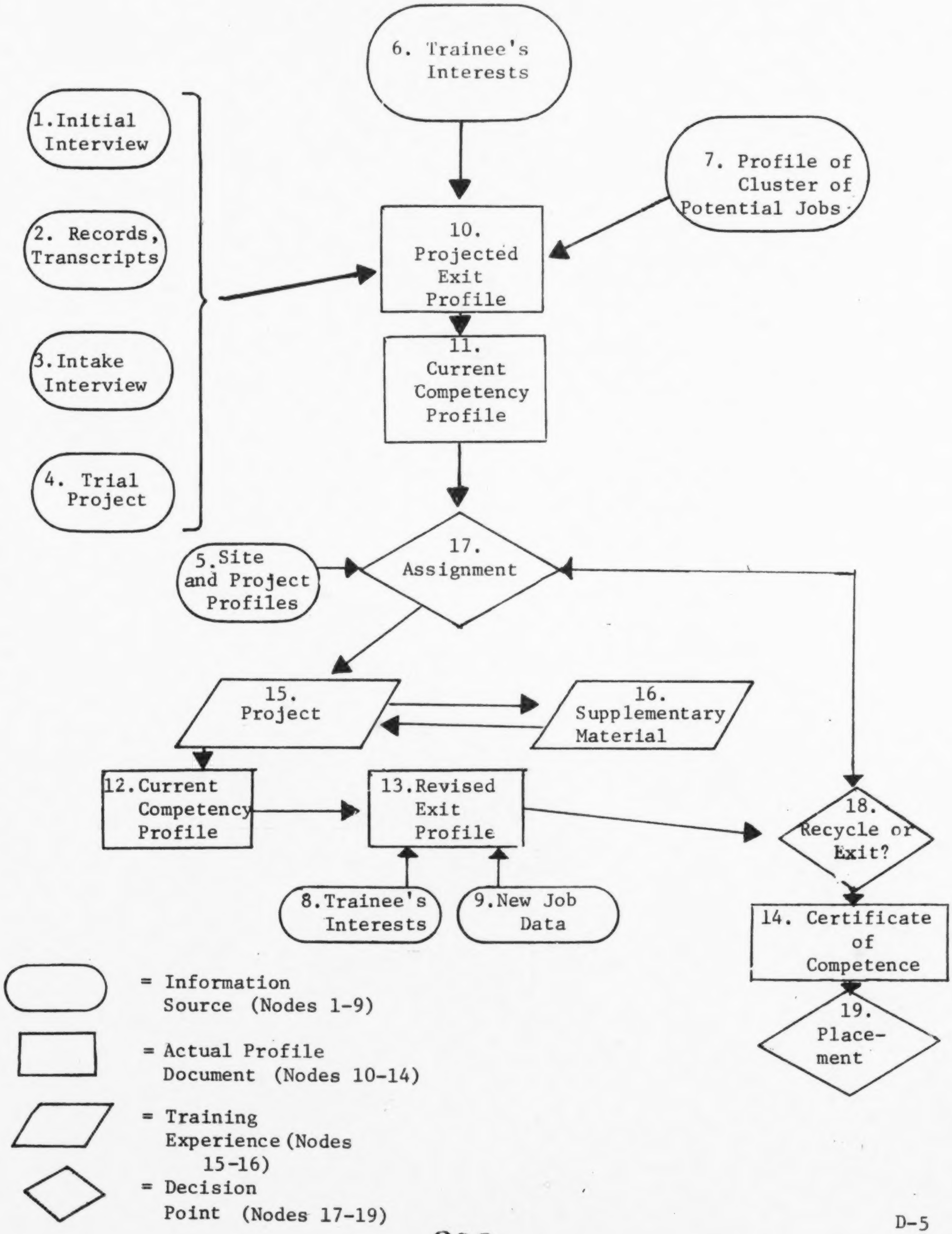
*The numbers in the cells refer to the Break-out of Tasks in Educational Development which is included as Section 5 of Appendix E.

FIGURE B

TRAINEE PATHWAY THROUGH THE PROGRAM


6. Trainee's Interests
1. Initial Interview
2. Records, Transcripts
3. Intake Interview
4. Trial Project
7. Profile of Cluster of Potential Jobs
10. Projected Exit Profile
11. Current Competency Profile
5. Site and Project Profiles
17. Assignment
15. Project
16. Supplementary Material
12. Current Competency Profile
13. Revised Exit Profile
18. Recycle or Exit?
8. Trainee's Interests
9. New Job Data
14. Certificate of Competence
19. Placement
= Information Source (Nodes 1-9)
= Actual Profile Document (Nodes 10-14)
= Training Experience (Nodes 15-16)
= Decision Point (Nodes 17-19)

The Job Profile

A survey of jobs will be conducted, and summarized on a Job Profile form which is closely related to the competency profile. An example is Figure C. Its use is depicted as Node 7 of Figure B.

The profile in Figure C is illustrative of a cluster of job positions which might be labeled "Developer of Educational Materials at the Generalist Level." It was derived from an interview with staff members of an agency engaged in materials development.

The characteristics of the job or cluster of jobs are represented by the shading of particular cells. Two levels of competence are represented in Figure C: (1) whether a job holder should be able to perform the task with a moderate amount of supervision (blank squares) or (2) perform the task with minimal or no supervision (the various kinds of shaded squares). In the profile illustrated, the shaded squares indicate that to hold this particular kind of job, the trainee should probably be able to perform those tasks with minimal supervision. The unshaded squares indicate the tasks that the trainee should be less concerned about as he need only be able to perform them with a supervisor available for intermittent assistance.

The job profiles to be used during the project will be derived empirically. As a first step in developing job profiles, the program staff will conduct a series of interviews with potential employers. This service area will comprise school districts, research and development agencies, and universities in the Pacific Northwest. It is possible that in subsequent years a broader area may be surveyed. A representative sample of employers will be questioned regarding the tasks which must be performed if one is to hold various development or evaluation jobs. These tasks will be rated as to degree of independence with which they must be performed. The same criteria for judging moderate or minimal supervision will be used when developing job profiles as when certifying trainee competence. If possible, an employee who does a given job well will be assessed on the competency profile instrument to gather more valid evidence.

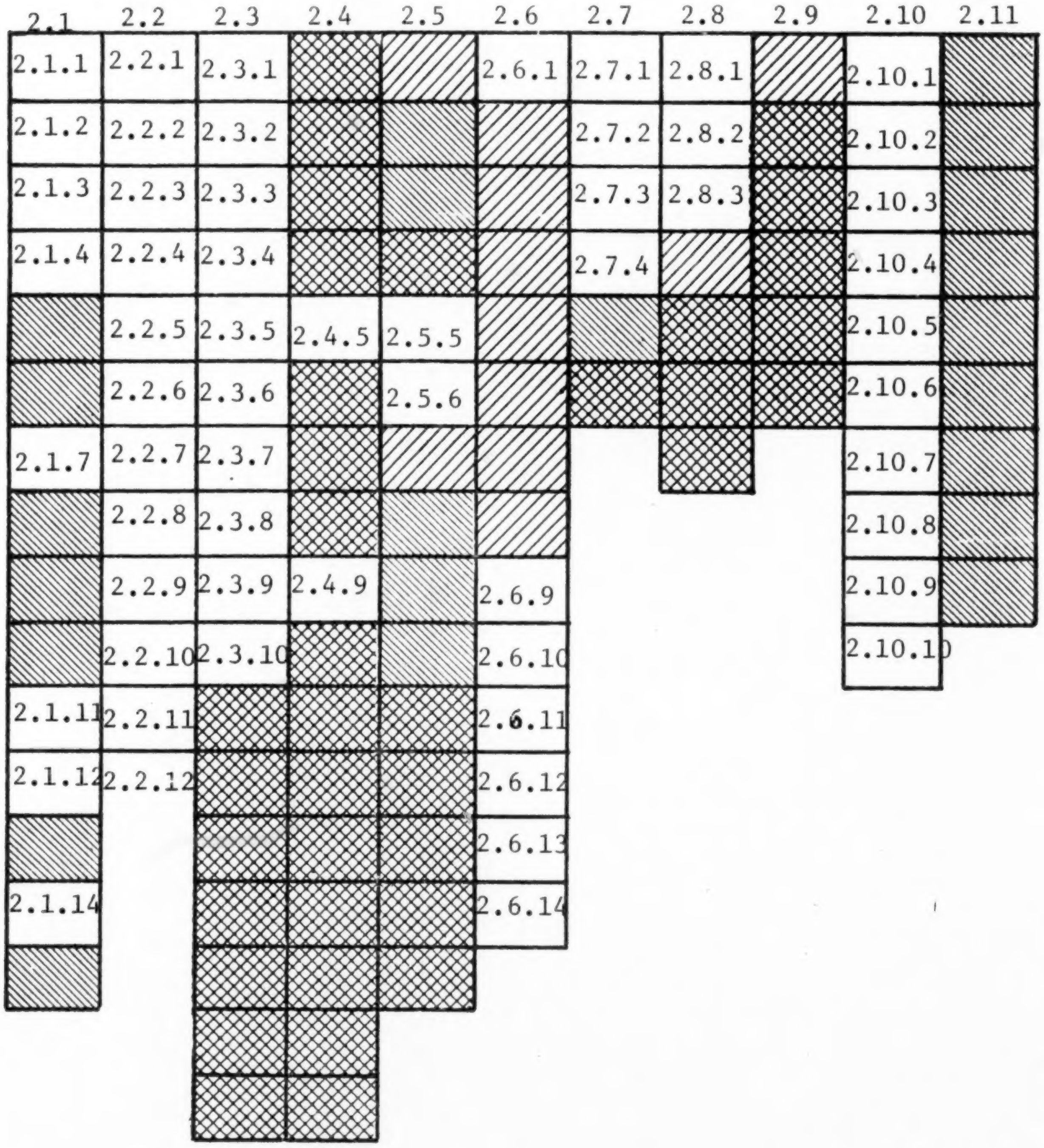
It will be noted that there are actually several levels of density of the shaded cells in Figure C. These levels of density represent variations in job requirements among employing institutions. That is, the darker the shading of a particular square, the greater the agreement among employers that the task represented should be performed with minimal supervision.

The Use of the Job Profile

The competency profile of an individual trainee can be combined with any particular job profile to show the degree to which the task performance of the individual currently differs from the job profile. That is, a trainee's level of competence on each task can be recorded on a job profile sheet to determine whether or not his present performance level is sufficient for the set of employment positions. As illustrated in Figure D, the competency ratings are coded to show whether the individual is below, at, or above the job profile. If his present level of performance requires more supervision than that which is feasible on the job, a minus sign is entered in the column representing the skill in question. If he is performing at the required level of supervision, a plus is entered. If he exceeds the required level of supervision, the plus sign is circled.

FIGURE C

PROFILE OF A CLUSTER OF JOBS IN EDUCATIONAL DEVELOPMENT



Problem-Solving Functions in Educational Development (Section 4, Appendix E)

Specific Tasks In Educational Develop-Ment (Lists in Section 5, Appendix E)

	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	2.1.1	2.2.1	2.3.1	▩	▨	2.6.1	2.7.1	2.8.1	▨	2.10.1	▧
2	2.1.2	2.2.2	2.3.2	▩	▧	▨	2.7.2	2.8.2	▩	2.10.2	▧
3	2.1.3	2.2.3	2.3.3	▩	▧	▨	2.7.3	2.8.3	▩	2.10.3	▧
4	2.1.4	2.2.4	2.3.4	▩	▩	▨	2.7.4	▨	▩	2.10.4	▧
5	▧	2.2.5	2.3.5	2.4.5	2.5.5	▨	▧	▩	▩	2.10.5	▧
6	▧	2.2.6	2.3.6	▩	2.5.6	▨	▩	▩	▩	2.10.6	▧
7	2.1.7	2.2.7	2.3.7	▩	▨	▨		▩		2.10.7	▧
8	▧	2.2.8	2.3.8	▩	▧	▨				2.10.8	▧
9	▧	2.2.9	2.3.9	2.4.9	▧	2.6.9				2.10.9	▧
10	▧	2.2.10	2.3.10	▩	▧	2.6.10				2.10.10	
11	2.1.11	2.2.11	▩	▩	▩	2.6.11					
12	2.1.12	2.2.12	▩	▩	▩	2.6.12					
13	▧		▩	▩	▩	2.6.13					
14	2.1.14		▩	▩	▩	2.6.14					
15	▧		▩	▩	▩						
16			▩	▩							
17			▩	▩							

☐ Task performed with periodic supervision

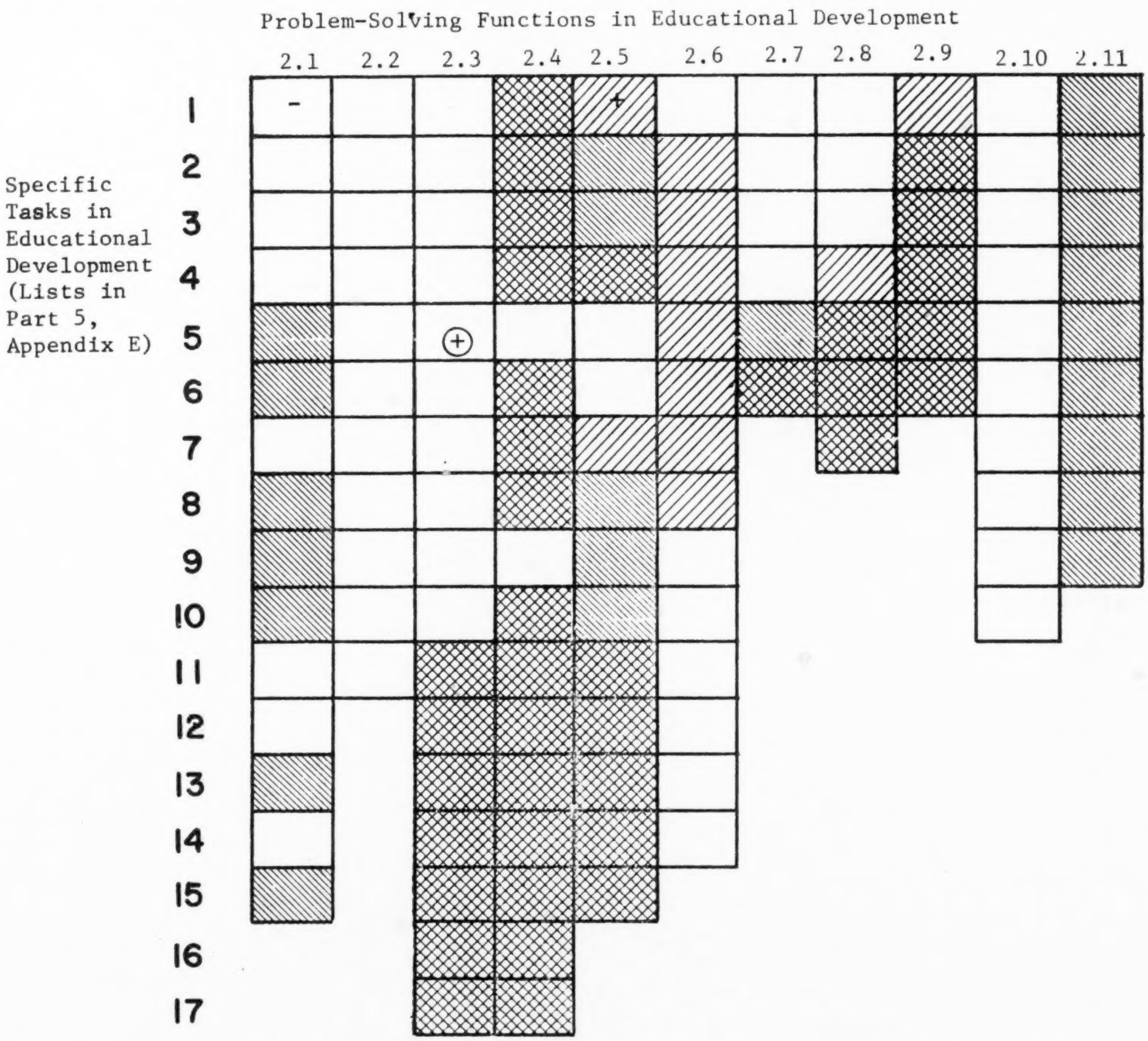
▨ Task that up to 30 percent of employers require personnel to perform independently or with minimal supervision

▧ 30 percent to 70 percent of employers require the task to be performed independently or with minimal supervision

▩ 70 percent to 100 percent of employers require the task to be performed independently or with minimal supervision

FIGURE D

PARTIAL PROFILE OF AN EDUCATIONAL DEVELOPMENT TRAINEE, AT ENTRY



Problem-Solving Functions in Educational Development

Specific Tasks in Educational Development (Lists in Part 5, Appendix E)	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	□ -	□	□	▩	▨ +	□	□	□	▨	□	▧
2	□	□	□	▩	▧	▨	□	□	▩	□	▧
3	□	□	□	▩	▧	▨	□	□	▩	□	▧
4	□	□	□	▩	▩	▨	□	▨	▩	□	▧
5	▧	□	⊕	□	□	▨	▧	▩	▩	□	▧
6	▧	□	□	▩	□	▨	▩	▩	▩	□	▧
7	□	□	□	▩	▨	▨		▩		□	▧
8	▧	□	□	▩	▧	▨				□	▧
9	▧	□	□	□	▧	□				□	▧
10	▧	□	□	▩	▧	□				□	
11	□	□	▩	▩	▩	□					
12	□		▩	▩	▩	□					
13	▧		▩	▩	▩	□					
14	□		▩	▩	▩	□					
15	▧		▩	▩	▩						
16			▩	▩							
17			▩	▩							

□ Moderate Supervision[1]

▨ No Supervision

▧ No Supervision

▩ No Supervision

- TRAINEE performs below the standard

+ TRAINEE performs at the standard

⊕ TRAINEE exceeds the standard

---

[1] See Figure C for complete explanation

An example of the changes in the competency levels of an individual over time, as related to a particular job profile, is shown in Figures E, F, and G. Figure E snows how a trainee might appear at the beginning of the training; Figure F is at an intermediate point; and Figure G is at the end of training. A comparison of Figures E and F illustrates some particular aspects of experience during the early portion of the project. In this example, the trainee's first assignments dealt more directly with project management and planning than with actual materials development. It will be noted that he has demonstrated competence on several project management and planning tasks. During the later portion of his training experience, the trainee worked more directly with materials development problems.

FIGURE E

COMPLETE PROFILE OF AN EDUCATIONAL DEVELOPMENT TRAINEE AT ENTRY

Problem-Solving Functions

Tasks	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	-	-	-	▩ -	▨ -	+	⊕	-	▨ -	-	▧ -
2	+	-	-	▩ -	▧ -	▨ +	+	-	▩ -	+	▧ -
3	-	-	-	▩ -	▧ +	▨ -	⊕	-	▩ -	-	▧ -
4	-	-	-	▩ -	▩ +	▨ -	⊕	▨ -	▩ -	-	▧ -
5	▧ -	-	-	-	+	▨ -	▧ +	▩ - -	▩ +	-	▧ +
6	▧ +	-	-	▩ -	-	▨ -	▩ +	▩ -	▩ -	-	▧ -
7	-	+	-	▩ -	▨ -	▨ +		▩ -		-	▧ -
8	▧ -	-	-	▩ +	▧ -	▨ +				+	▧ -
9	▧ +	-	-	-	▧ -	-				-	▧ -
10	▧ -	-	-	▩ -	▧ -	-				-	
11	-	-	▩ -	▩ -	▩ -	-					
12	-		▩ -	▩ -	▩ -	+					
13	▧ -		▩ -	▩ -	▩ +	-					
14	-		▩ - -	▩ -	▩ +	-					
15	▧ -		▩ -	▩ -	▩ +						
16			▩ -	▩ -							
17			▩ -	▩ +							

☐ Moderate Supervision[1]

▨ No Supervision

▧ No Supervision

▩ No Supervision

\- TRAINEE performs below the standard

+ TRAINEE performs at the standard

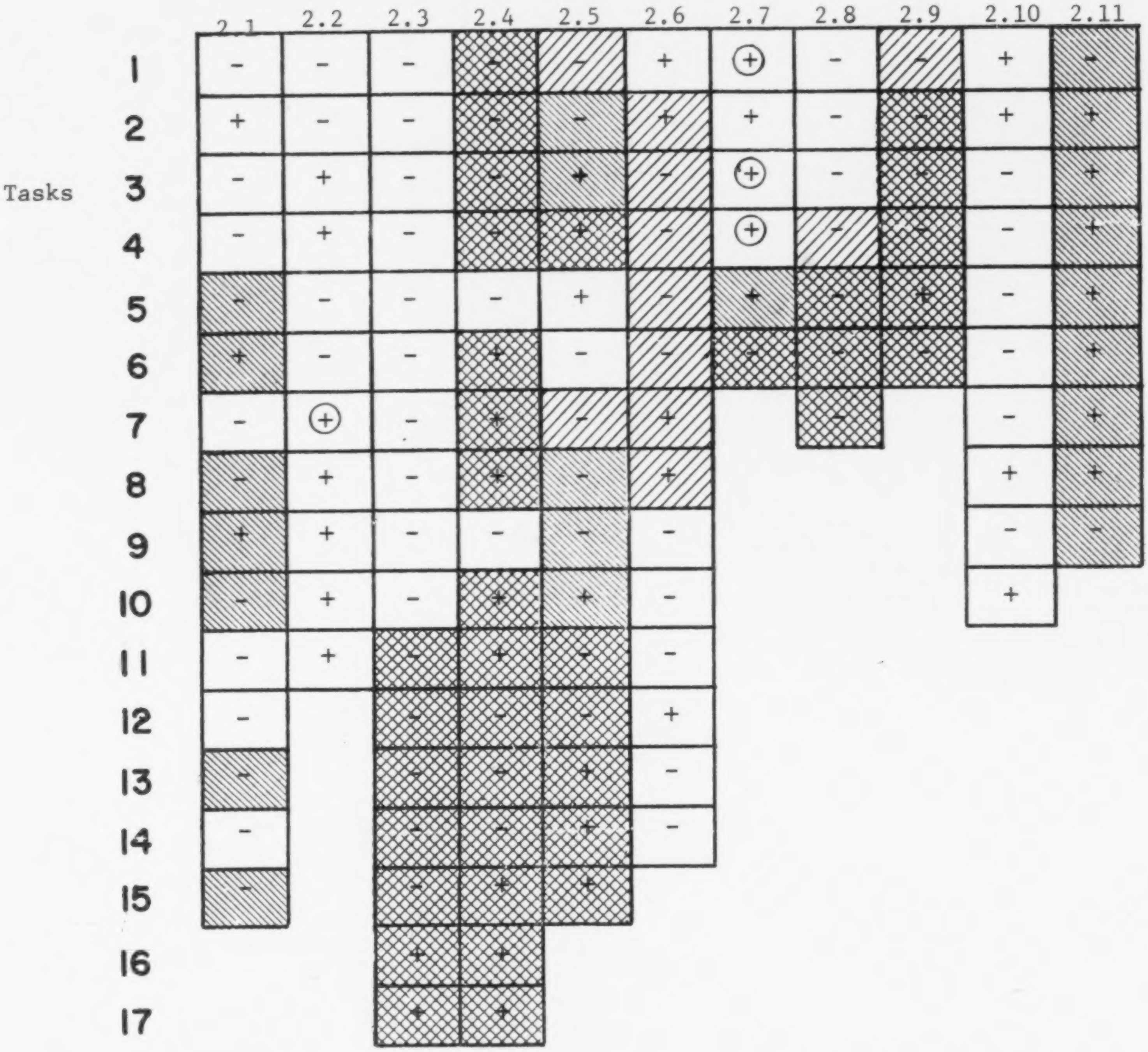
⊕ TRAINEE exceeds the standard

---

[1] See Figure C for complete explanation

FIGURE F

TRAINEE PROFILE, PART WAY THROUGH TRAINING



Functions

Tasks	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	-	-	-	▩ -	▨ -	+	⊕	-	▨ -	+	▧ -
2	+	-	-	▩ -	▧ -	▨ +	+	-	▩ -	+	▧ +
3	-	+	-	▩ -	▧ +	▨ -	⊕	-	▩ -	-	▧ +
4	-	+	-	▩ -	▩ +	▨ -	⊕	▨ -	▩ -	-	▧ +
5	▧ -	-	-	-	+	▨ -	▧ +	▩ -	▩ +	-	▧ +
6	▧ +	-	-	▩ +	-	▨ -	▩ -	▩ -	▩ -	-	▧ +
7	-	⊕	-	▩ +	▨ -	▨ +		▩ -		-	▧ +
8	▧ -	+	-	▩ +	▧ -	▨ +				+	▧ +
9	▧ +	+	-	-	▧ -	-				-	▧ -
10	▧ -	+	-	▩ +	▧ +	-				+	
11	-	+	▩ -	▩ +	▩ -	-					
12	-		▩ -	▩ -	▩ -	+					
13	▧ -		▩ -	▩ -	▩ +	-					
14	-		▩ -	▩ -	▩ +	-					
15	▧ -		▩ -	▩ +	▩ +						
16			▩ +	▩ +							
17			▩ +	▩ +							

□	Moderate Supervision[1]
▨	No Supervision
▧	No Supervision
▩	No Supervision

- TRAINEE performs below the standard

+ TRAINEE performs at the standard

⊕ TRAINEE exceeds the standard

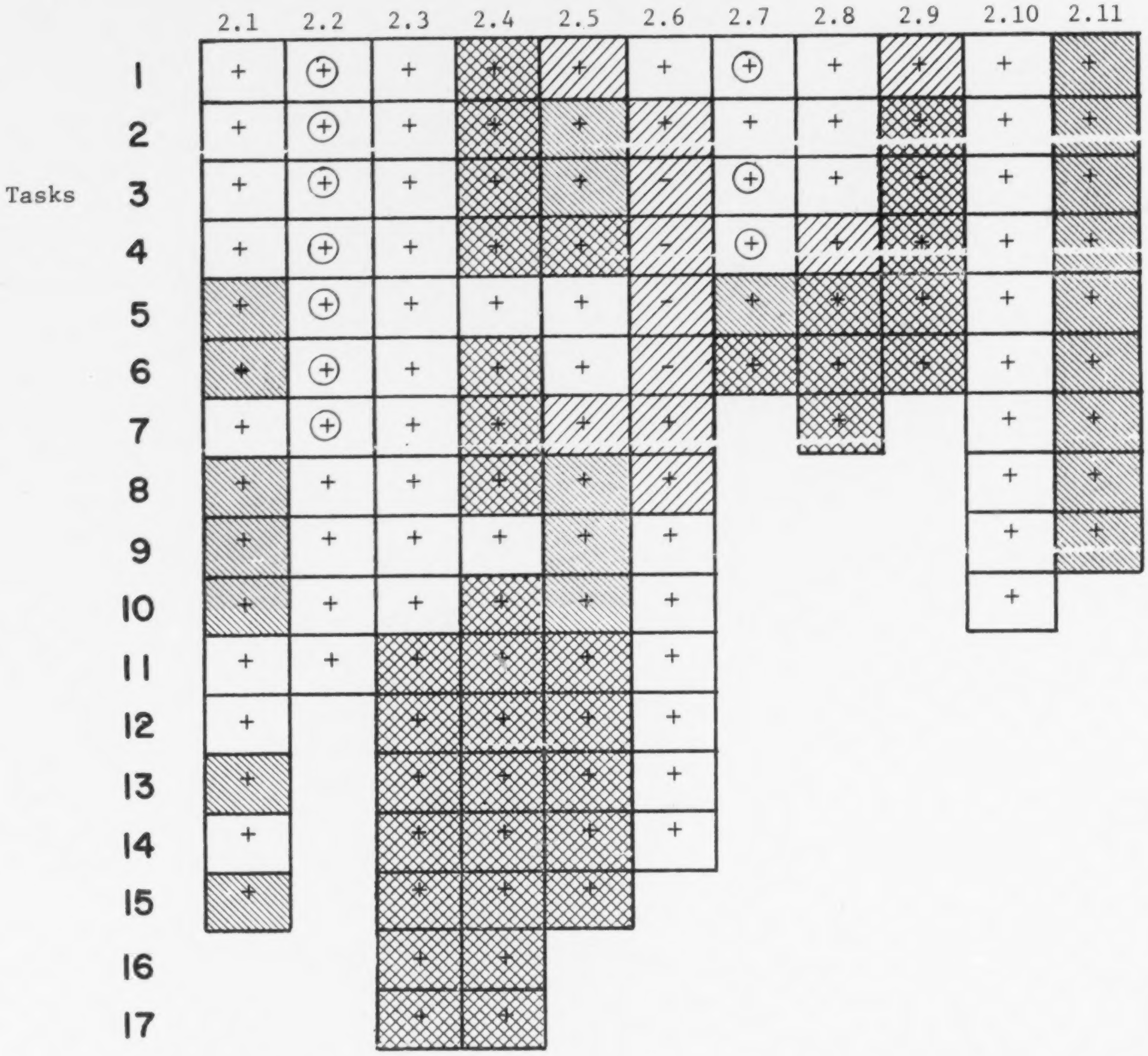
---

[1] See figure C for complete explanation

FIGURE G

TRAINEE PROFILE AT THE END OF TRAINING

Functions



Tasks	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	+	⊕	+	▩ +	▨ +	+	⊕	+	▨ +	+	▧ +
2	+	⊕	+	▩ +	▧ +	▨ +	+	+	▩ +	+	▧ +
3	+	⊕	+	▩ +	▧ +	▨ −	⊕	+	▩ +	+	▧ +
4	+	⊕	+	▩ +	▩ +	▨ −	⊕	▨ +	▩ +	+	▧ +
5	▧ +	⊕	+	+	+	▨ −	▧ +	▩ +	▩ +	+	▧ +
6	▧ +	⊕	+	▩ +	+	▨ −	▩ +	▩ +	▩ +	+	▧ +
7	+	⊕	+	▩ +	▨ +	▨ +		▩ +		+	▧ +
8	▧ +	+	+	▩ +	▧ +	▨ +				+	▧ +
9	▧ +	+	+	+	▧ +	+				+	▧ +
10	▧ +	+	+	▩ +	▧ +	+				+	
11	+	+	▩ +	▩ +	▩ +	+					
12	+		▩ +	▩ +	▩ +	+					
13	▧ +		▩ +	▩ +	▩ +	+					
14	+		▩ +	▩ +	▩ +	+					
15	▧ +		▩ +	▩ +	▩ +						
16			▩ +	▩ +							
17			▩ +	▩ +							

☐ Moderate Supervision[1]

▨ No Supervision

▧ No Supervision

▩ No Supervision

- TRAINEE performs below the standard

\+ TRAINEE performs at the standard

⊕ TRAINEE exceeds the standard

---

[1] See Figure C for complete explanation

The Projected Exit Profile

The term projected exit profile has been selected in order to convey the idea that it is the profile toward which the trainee is directing his efforts during his tenure in the program. Such a profile is shown as Figure H. (See Node 10, Figure B). Two sources of information will be used in deriving each trainee's projected exit profile: The job profiles, and goals that each trainee hopes to attain as a result of the program (Node 6, Figure B).

During the induction process, the trainee and the project staff draw up the projected exit profile (Node 10, Figure B). The process is one of negotiation during which a trainee's expressed interests (Node 6, Figure B) are judged against real job profile information (Node 7, Figure B) and the realistic constraints of the program. For example, a prospective trainee may aspire to learn a greater number of tasks than he could possibly learn during a reasonable course of tenure in the program. Information for selecting some subset of the initially desired tasks can be determined for most available positions and may help the trainee select the experiences that will be most useful to his career. Further information regarding the nature of the negotiations in this program may be found in Section 2 of the Appendix.

The Training Process - Development of the Projected Exit Profile

The projected exit profile (Nodes 10, 13, Figure B) will be the primary document used to guide the trainee through the program. The projected exit profile is the shaded or unshaded portion of the competency profile format (Figure A). Shading (or lack of it) will be used to indicate the level of competence to which the trainee aspires on each task. Unshaded areas will be used to indicate tasks that the trainee aspires to perform with moderate supervision and shaded areas will be used to indicate tasks the trainee aspires to perform with minimal supervision. Once a trainee's competency ratings are entered on an exit profile, the result is a Competency Profile.

A sample competency profile is illustrated in Figures H, I, and J. Figure H illustrates a competency profile (Node 11, Figure B) at the beginning of training. It will be noted that in this example the trainee initially aspires to a pattern of levels of competence identical with that required to hold the job "Developer of Educational Materials--Generalist" (See Figure C). That is to say, the trainee and his advisor apparently decided not to take any chances, covering at "minimal supervision" 100% of the squares which only 30% of the employers placed in that category. Again, the symbols "-", "+", or "⊕", are used to indicate the trainee's current level of competence with respect to the degree of independence targeted for each task.

FIGURE H

PROFILE AT BEGINNING OF TRAINING
(Exit Profile Plus Competency Ratings)

Tasks	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	-	-	-	▨ -	▨ -	+	⊕	-	▨ -	-	▨ -
2	+	-	-	▨ -	▨ -	▨ +	+	-	▨ -	+	▨ -
3	-	-	-	▨ -	▨ +	▨ -	⊕	-	▨ -	-	▨ -
4	-	-	-	▨ -	▨ +	▨ -	⊕	▨ -	▨ -	-	▨ -
5	▨ -	-	-	-	+	▨ -	▨ +	▨ -	▨ +	-	▨ +
6	▨ +	-	-	▨ -	-	▨ -	▨ +	▨ -	▨ -	-	▨ -
7	-	+	-	▨ -	▨ -	▨ +		▨ -		-	▨ -
8	▨ -	-	-	▨ +	▨ -	▨ +				+	▨ -
9	▨ +	-	-	-	▨ -	-				-	▨ -
10	▨ -	-	-	▨ -	▨ -	-				-	
11	-	-	▨ -	▨ -	▨ -	-					
12	-		▨ -	▨ -	▨ -	+					
13	▨ -		▨ -	▨ -	▨ +	-					
14	-		▨ -	▨ -	▨ +	-					
15	▨ -		▨ -	▨ -	▨ +						
16			▨ -	▨ -							
17			▨ -	▨ +							

Functions

- Trainee Performs Below Standard

+ Trainee Performs At the Standard

⊕ Trainee Exceeds the Standard

☐ Moderate Supervision

▨ Minimal Supervision

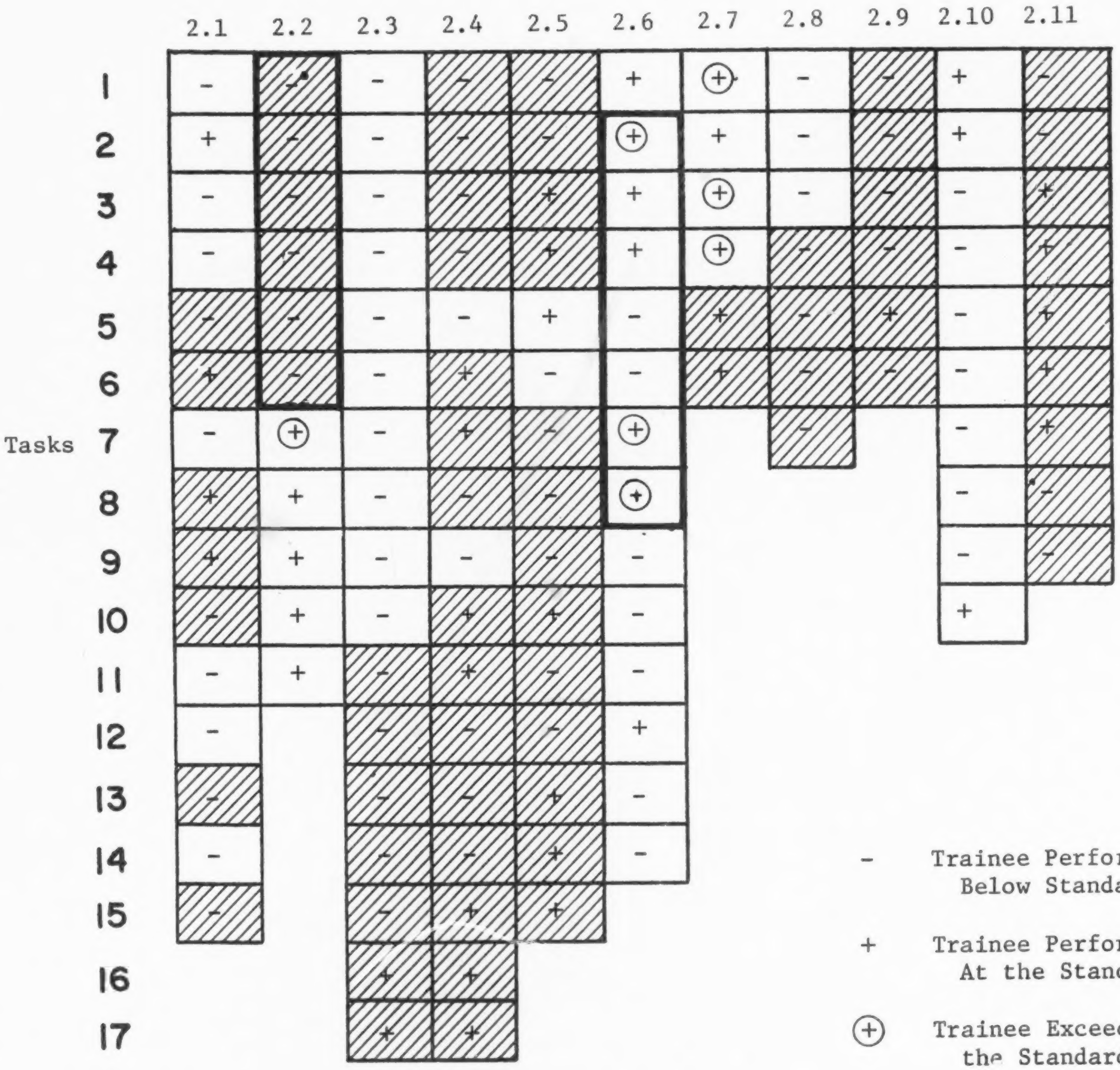
Figure I shows the same trainee's competency profile at an intermediate point in training. There have been some changes in the pattern of shading, the exit profile. These changes are indicated by the heavy border. These changes were made because during the training the trainee renegotiated certain tasks (Node 13, Figure B). There are many reasons for such renegotiation including changes in the trainee's interests (Node 8, Figure B) or the requirements for a particular job or set of jobs for which the trainee hopes to be eligible when he has completed his training (Node 9, Figure B).

Figure J shows what might be considered an ideal competency profile. Here the trainee has satisfied or exceeded every portion of his projected exit profile (Nodes 18, 14, 19, Figure B).

FIGURE I

COMPETENCY PROFILE
(Part-way Through Training)

Functions



Tasks	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	-	▨ -	-	▨ -	▨ -	+	⊕	-	▨ -	+	▨ -
2	+	▨ -	-	▨ -	▨ -	⊕	+	-	▨ -	+	▨ -
3	-	▨ -	-	▨ -	▨ +	+	⊕	-	▨ -	-	▨ +
4	-	▨ -	-	▨ -	▨ +	+	⊕	▨ -	▨ -	-	▨ +
5	▨ -	▨ -	-	-	+	-	▨ +	▨ -	▨ +	-	▨ +
6	▨ +	▨ -	-	▨ +	-	-	▨ +	▨ -	▨ -	-	▨ +
7	-	⊕	-	▨ +	▨ -	⊕		▨ -		-	▨ +
8	▨ +	+	-	▨ -	▨ -	⊕				-	▨ -
9	▨ +	+	-	-	▨ -	-				-	▨ -
10	▨ -	+	-	▨ +	▨ +	-				+	
11	-	+	▨ -	▨ +	▨ -	-					
12	-		▨ -	▨ -	▨ -	+					
13	▨ -		▨ -	▨ -	▨ +	-					
14	-		▨ -	▨ -	▨ +	-					
15	▨ -		▨ -	▨ +	▨ +						
16			▨ +	▨ +							
17			▨ +	▨ +							

- Trainee Performs Below Standard

+ Trainee Performs At the Standard

⊕ Trainee Exceeds the Standard

NOTE: Heavy Borders Indicate Tasks Renegotiated

☐ Moderate Supervision

▨ Minimal Supervision

FIGURE J

COMPETENCY PROFILE
(At the End of Training)

Functions

Tasks	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11
1	+	▨ +	+	▨ +	▨ +	⊕	+	+	▨ +	+	▨ +
2	+	▨ +	+	▨ +	▨ +	⊕	+	+	▨ +	+	▨ +
3	+	▨ +	+	▨ +	▨ +	+	+	+	▨ +	+	▨ +
4	+	▨ +	+	▨ +	▨ +	+	+	▨ +	▨ +	+	▨ +
5	▨ +	▨ +	+	+	+	+	▨ +	▨ +	▨ +	+	▨ +
6	▨ +	▨ +	+	▨ +	+	+	▨ +	▨ +	▨ +	+	▨ +
7	+	+	+	▨ +	▨ +	⊕		▨ +		+	▨ +
8	▨ +	+	+	▨ +	▨ +	⊕				+	▨ +
9	▨ +	+	+	+	▨ +	+				+	▨ +
10	▨ +	+	+	▨ +	▨ +	+				+	
11	+	+	▨ +	▨ +	▨ +	+					
12	+		▨ +	▨ +	▨ +	+					
13	▨ +		▨ +	▨ +	▨ +	+					
14	+		▨ +	▨ +	▨ +	+					
15	▨ +		▨ +	▨ +	▨ +						
16			▨ +	▨ +							
17			▨ +	▨ +							

-	Trainee Performs Below Standard
+	Trainee Performs At the Standard
⊕	Trainee Exceeds the Standard

☐	Moderate Supervision
▨	Minimal Supervision

An Illustration

The following is an example of the way in which the competency profile will be used in order to guide a trainee through the training program. Consider a person who has completed initial screening and has been selected for the intake interview. His goal is to become an instructional materials developer and he states his preference for this type of training. At this point, a complete current set of competency ratings will be compiled. The staff interviewer will have information from the trainee's application form, transcripts of earlier training, reference letters, and the rough profile of experience and aspiration compiled during the initial conference (Nodes 1, 2, 3, 5, 6, 7, Figure B).

The competency profile interview will be an extensive and detailed process. The candidate's competence at each task will need to be determined. Each task will have a detailed description and the conditions under which it will be performed will be delineated. In addition, any products that may be associated with it will also be described. For each task, an appraisal will be made of the level of supervision at which the trainee could demonstrate performance of the task at an acceptable level of quality. For the most part, this information will be gained from the trainee self-reports during the interview. The trainee will be asked to describe similar tasks he may have performed. Specified criteria will be used when deciding the trainee's present level of competence based on his description (Nodes 10, 11, Figure B).

Additional information on a trainee's competence will be gained during the subsequent "trial project" (Node 4, Figure B). At this time, actual task assignments will be made and a sample of products created by the trainee will be rated on the criteria developed. An effort will be made to rate a trainee on tasks on which intake interview information (Node 3, Figure B) is insufficient. For example, if a trainee has no experience on a task, but has some related experience at similar tasks, it would be of interest to determine whether he is able to complete an assignment of that task with little or no special training. Ratings made at the time of the trial project will serve to refine the judgments made during the interview, and correct for either inflated or overly modest self-reports of ability given by the trainee during the original competency profile interview. The alternative to this kind of iterative specification of the competency ratings, assessment of performance on perhaps hundreds of tasks, would be impossibly expensive.

Selection of Level of Competence

As an example, the first task in the list of tasks to be performed by a developer of instructional materials is, "State a problem and articulate why its solution most appropriately involves development of a product," which is task 2.1.1 (first page of Section 5, Appendix E). It will be noted this is the first cell of the first column of the competency profile format, such as Figure D. Upon entering the intake interview, the trainee's advisor points out that in order to hold a development position in a research and development agency, an employee would probably have to be able to perform this kind of task under moderate supervision. Since the trainee is interested in holding such a job, he indicates that he wants sufficient training experience to be able to perform the job with moderate supervision. At this point, a decision about the shading of the specified cell of the proposed exit profile is made. It is left unshaded to indicate the trainee aspires to perform this task under moderate supervision, but not under minimal supervision.

The next step is to determine the present level of supervision under which the trainee can perform this task. In this example, it is discovered that the trainee has never performed anything similar to the task and would probably require a large amount of supervision in order to perform it. The counselor, therefore, places a minus sign in the cell under discussion, cell one of the first column of Figure H. The minus sign indicates the trainee does not presently have the level of skill needed to perform at the moderate supervision level. A glance at this cell now indicates the trainee's aspiration, and where he stands in the relation to his goal. During the course of the training program, the experiences needed to permit the trainee to learn to perform the task with a moderate amount of supervision will be provided. That is, a project assignment will be found that affords this experience.

If the trainee had been highly competent at this task as determined by the intake interview, and could already perform the task with minimal supervision, then a circled plus would have been entered in that cell of the profile. Had that been the case, it is unlikely that any special project experience on the task would be arranged. As illustrative examples of such assessments, turn to Figure D. There, the trainee has been rated as exceeding the requirements of task 2.3.5 (specify types of learning) and meeting the requirements of task 2.5.1 (specify performance measures).

Selection of Instructional Experiences During a Project

Once completed, the competency profile will be used as the basic guide for task assignments during the course of training (Nodes 5, 15, 16, 17, Figure B). At any given time, each trainee will have an up-to-date competency profile which will contain the two classes of information described earlier. These are (1) the level of competency for each task to which the trainee aspires during his training and (2) the present level of competence of the trainee presented in terms of deviation from his aspiration. As the trainee proceeds through the project, his proposed exit profile, and thus his competency profile, will be revised regularly, if necessary, in conference with his supervisor.

Consider, for example, a trainee who has negotiated an intent to perform a particular task under conditions of moderate supervision. For a developer of instructional materials, such a task might be the specification of needed modifications of the physical environment in order to conduct a trial of prototype materials (Task 2.6.9, Section 5, Appendix E). During the intake process it was determined that the trainee had never performed this task. Therefore, when the trainee is first assigned to the task on a project, his performance will be monitored directly by the supervisor to determine whether or not the initial classification was accurate. Then, if the trainee actually demonstrates proficiency at the task, (i.e., if he can produce an acceptable list of need specifications with moderate or little supervision), the competency profile will be changed by adding a plus or a circled plus, depending on the level of proficiency. More likely, however, if he has never done this task before, his performance will be such that he will need to perform the task one or more times before he is judged as competent.

The order in which the trainee proceeds through his negotiated tasks will depend upon a number of factors: the projects that are available as vehicles for practicing the tasks; the identification of certain tasks as being more important than others for the target cluster of potential job slots; the trainee's interests and preferences; and any reliable evidence regarding dependencies, such that trainees are more likely to acquire proficiency at certain tasks if they have first acquired proficiency at certain other tasks.

With respect to proceeding on a particular task, the order of experiences suggested and followed will generally be determined by a preference, in this training program, for letting a trainee "get his feet wet" in initial involvement with the task, in a way which motivates him to seek out, select, and utilize any supplementary learning resources and experiences available. In conventional training programs, in contrast, the trainee is not allowed to begin on a "real world" task until he has lived through an unmotivating prescription of formal study and instruction.

Supplementary Resources

The structure of the training program is designed to provide the opportunity for the trainee to gain competence through assignment (Node 17, Figure B) to projects (Node 15, Figure B) offering the needed experiences. In addition, the program will also concern itself with producing and providing supplementary training materials. (Node 16, Figure B). Such materials will include lists of relevant, high-quality articles, books and texts that deal with topics related to each task. Instructional packages will be developed that deal with selected tasks and groups of tasks which are crucial, which appear frequently in the training programs, and for which existing resources are inadequate or are poorly matched to the use-patterns which are optimal for this kind of training. Since the function and task delineation developed for this kind of training is unique and includes a large number of tasks at a fine grain level, it is likely that a fair quantity of supplementary materials will need to be developed specifically for this program. It is anticipated that programmed texts, slide-tape presentations, workbook and simulation exercises will be developed, which will be optimally useful for this kind of project-oriented program, but which will also be valuable in more conventional settings.

Additional training will be provided in the form of seminars conducted at the project site. Consultants and project staff will be called on to lead the seminars. The competency profile offers a unique opportunity to make decisions concerning the selection of topics relevant to the needs of trainees at the site. A composite profile of several trainees would indicate areas in which common deficiencies exist. For example, the training site director may examine all profiles of trainees at his site to determine areas where a relatively large proportion are performing below their desired exit level. When these areas are identified, the site director can then set up seminars to cover these topics. While such a procedure could be conducted informally, it would also be possible to program the process for computer monitoring, on the basis of both entry records (Nodes 10, 11, Figure B) and current relevant information (Nodes 17, 12, 13, Figure B) on the trainees.

A decision point at which the competency profile will have particular importance is when a trainee is having difficulties in the program. For example, it may be discovered that before a trainee can perform a task under even constant supervision, some background skills are necessary. Such a task for an evaluation generalist may be the identification of appropriate tests of statistical significance (Task 4.7.10 of Section 6 of Appendix E). Without at least some familiarity with statistical manipulations and some basic understanding of probability theory, performance of this task may not be possible. The trainee may lack information to make the decisions and will have to rely heavily on the supervisor to perform the task. Using the numbering system of the profile as an indexing guide, supplementary experiences may be located that will provide the background information to help him participate more directly in the task. In some cases, the supplementary experiences may include formal course work.

The training program itself, as a project, contains a large number of potential supplementary experiences. For example, the program will be developing materials for its own use. In addition, it will be evaluating both the materials it is developing and itself as a training project. In the case that a suitable project experience cannot be found at any of the projects at the training sites, the training program itself will therefore be used as a training project. In this case, the trainees may actually be assigned to the development and evaluation of instructional packages to be used in the program itself.

Consider as an example a trainee whose goal is to be a materials developer. He may need a particular skill for which no project assignment and no suitable instructional package is available. Such a task might be stating the organizational structure of a project's staff (Task 2.11. of Section 5, Appendix E). In a case such as this, the training program may decide to begin work on an instructional package dealing with organizational structures, particularly if project assignments offering this task are difficult to find. In this example the trainee may be assigned to work on the development of this instructional package. During this assignment, the trainee will gain additional competence in working at development tasks and, at the same time, become familiar with concepts related to organizational structures.

Summary

Information must be regularly generated to permit the training program to operate, and in this light the content of the training program must be organized to operate within and be responsive to the parameters of the program. The format in which this information is recorded is that of the competency profile diagrams which have been explained in this section of this Appendix. The points of use of the competency profiles in the proposed program include:

1. Informing and recruiting potential trainees
2. Description of potential jobs and job clusters in various locations and institutions
3. Description of trainee's target profile at exit
4. Initial interviews with trainees
5. Follow-up of initial interviews
6. Intake interviews, detailed entry assessment
7. Sample situational assessments during training
8. Arranging the trainee's first project
9. Planning, negotiating, scheduling, and revising, the trainee's work and criteria
10. Selection of sites and projects
11. Designing and describing instructional resources, materials, and procedures
12. Designing and describing staffing at specific sites so as to maximize training opportunities with minimal interference with crucial services
13. Describing and developing instructional specialties of staff members
14. Resolving issues and conflicting priorities in the training of individuals and in the operation and decentralization of the training program
15. Monitoring training
16. Ongoing assessment and renegotiation
17. Challenge procedures
18. Exit assessment, comparison of trainees at exit
19. Placement
20. Facilitating career mobility and personal development
21. Evaluation of training of individuals
22. Evaluation of other aspects of the training program

Section 2. Judgments Related to the Competency Profiles

The use of the competency profiles in an operating project will require continual judgments about trainee performance. Collected in this section are some of the dimensions and criteria for these judgments. The materials are presented as a series of tables.

Table 1. Criteria for Particular Performances

Table 2. Criteria for Sets of Performances

Table 3. Technical Integration Survey

Table 4. Contextual Integration Survey

Table 5. Survey of Performance on a Specific Function

Table 6. Kinds of Performances With Respect to Types of Content

Table 7. Levels of Involvement

Table 8. Operational Definitions of Degree of Independence of Supervision

Table 9. Operational Definitions of Indicators of Responsibility

Table 10. Operational Definitions of Variety of Contexts

Table 11. Alternative Types of "Acceptance Conditions" for Performances

Table 1: Criteria for Particular Performances

1. Level of resourcefulness (reliance on supervision) in performance
2. Degree of responsibility for product
3. Technical quality of product
4. Technical appropriateness and adequacy of product
5. Technical breadth of product
6. Intellectual breadth of product
7. Number of tasks required and done to produce product
8. Criteria for various classes of products

Table 2: Criteria for Sets of Performances

1. Variety of ways in which a given function, including its sets and subsets of tasks, has been carried out
2. Variety of types of products generated by performance of a given function, including its set and subsets of tasks
3. Variety of types of products generated by performance of a given task
4. Technical integration
5. Interpersonal integration
6. Breadth of contexts
7. Blending of the intensive, fairly structured, content and atmosphere of evaluation activities with the cross-RDD&E nature and team aspects of development activities

Table 3: Technical Integration Survey (based on Harrison, 1966)

1.1 (Communication) How fluently does this person communicate the relevant abstractions and generalizations

- 1.1.1 in writing ?
- 1.1.2 orally?

1.2 (Decision-Making) To what extent does this person demonstrate critical judgment and commitment

- 1.2.1 in analyzing assumptions?
- 1.2.2 in testing assumptions?
- 1.2.3 in using resources?
- 1.2.4 in assessing himself?
- 1.2.5 in assessing his institution?

1.3 (Problem-Solving) To what extent does this person demonstrate that he can work toward rational solutions based on

- 1.3.1 logic?
- 1.3.2 verifiable knowledge?

1.4 (Relation to Others) To (1) what extent; (2) how appropriately; and (3) how effectively, does this person interact with others as informational or technical resources for improving (a) his knowledge and (b) his use of that knowledge in real settings

- 1.4.1 peers who are fellow trainees in an ongoing training program?
- 1.4.2 superiors on site staff (which?)?
- 1.4.3 training program staff of training program in which he is a trainee (which?)?
- 1.4.4 peers who are not trainees, while he is a trainee?
- 1.4.5 peers on site staff, prior to training?
- 1.4.6 peers on site staff, after training?
- 1.4.7 students?
- 1.4.8 citizens?
- 1.4.9 consumers?
- 1.4.10 community leaders?
- 1.4.11 other resource persons (which?)?

1.5 (Commitment) To what extent is there evidence, regarding this person, of

- 1.5.1 commitment to truth?
- 1.5.2 being objective?
- 1.5.3 handling difficult situations by information-seeking?
- 1.5.4 handling difficult situations by explanations and theories?

1.6 (Ideals) To what extent is there evidence, regarding this person, of

- 1.6.1 valuing scientific truth?
- 1.6.2 valuing social justice?
- 1.6.3 finding satisfaction in distant goals?

Table 4: Contextual Integration Survey (based on Harrison, 1966)

1.1 (Communication) How fluently does this person communicate in direct interaction (with whom?)

  1.1.1 Verbally?
  1.1.2 Non-verbally?
  1.1.3 Demonstrating sensitivity to feelings?
  1.1.4 Demonstrating sensitivity to ideas?

1.2 (Decision-Making) To what extent does this person demonstrate that he can

  1.2.1 Come to conclusions and take action using whatever information is available?
  1.2.2 Search for practical possibilities in the situation?
  1.2.3 Trust feelings and beliefs as well as facts and reason?

1.3 (Problem-Solving) To what extent does this person demonstrate that he can

  1.3.1 Work toward effective applications of people's energies to overcoming some barrier to a common goal?
  1.3.2 Identify and get agreement on common goals?
  1.3.3 Identify and get agreement on barriers?
  1.3.4 Identify and recruit the people to work with?

1.4 (Relation to Others) To (1) what extent, (2) how appropriately, and (3) how effectively, does this person interact with others cooperatively as necessary for accomplishing common efforts

  1.4.1 peers who are fellow trainees in an ongoing training program?
  1.4.2 superiors on site staff (which)?
  1.4.3 training program staff of training program in which he is a trainee (which)?
  1.4.4 peers who are not trainees while he is a trainee?
  1.4.5 peers on site staff, prior to training?
  1.4.6 peers on site staff, after training?
  1.4.7 students?
  1.4.8 citizens?
  1.4.9 consumers?
  1.4.10 community leaders?
  1.4.11 other resource persons (which)?

1.5 (Commitment) To what extent is there evidence, regarding this person, of

  1.5.1 Commitment to involvement in human relations?
  1.5.2 Commitment to involvement in organizations (which? why?)?
  1.5.3 inspiring trust in others (who)?
  1.5.4 dealing with difficult situations (which) by constructive action (what)?

Table 5: Survey of Performance on a Specific Function

A. In performing this function, ____________, the evidence is as follows:

1. Development of Professional Responsibility

   1.1 Has the trainee's level of involvement increased? From what modal level to what modal level? Compared to other trainees?
   1.2 Has the extent of the trainee's independence from supervision increased? From what modal level, to what modal level? Compared to other trainees?
   1.3 Has trainee experienced and functioned well over a diversity of responsibility compared to other trainees?
   1.4 Has the trainee performed this function in a variety of contexts (list)? Compared to other trainees?
   1.5 Has the trainee performed this function in both technically intensive, structured, projects and in technically loose, unstructured, projects (examples)?

2. Development and Variety of Products

   2.1 Have the trainee's products been of high technical quality? Compared to other trainees?
   2.2 Have the trainee's products generally been technically appropriate or valid for the problem and context at hand; that is, are they of the right kind?
   2.3 Have the trainee's products generally been technically adequate for the problem and context at hand; that is, are they no more elaborate than the situation calls for?
   2.4 Within the products, has the trainee demonstrated technical breadth in selecting, planning, and producing the products?
   2.5 Has the trainee demonstrated intellectual breadth in explaining the product and why it was selected, planned, and produced?
   2.6 How many different kinds of acceptable products (list) has the trainee independently produced in performing this function? Compared to other trainees?

3. Coverage of Tasks

   3.1 How many (which) of the tasks listed under this function has the trainee performed at least once? at least three times?
   3.2 How many (which) of the tasks listed under this function has the trainee performed responsibly, independently, technically appropriately, adequately, and well; that is, acceptable independent performance, at least once? at least three times?

B. Interpretation of the answers to the preceeding sets of questions:

1. How professionally responsible has the trainee become (1.1 - 1.5 above) in connection with this function?

2. What about his development in terms of variety and quality of products of this function (2.1 - 2.6 above)?

3. Which tasks in this function should he learn to do better; which ones has he never tried (3.1, 3.2 above)?

4. Which two products of this function demonstrate this trainee's best work on this function? Why?

5. Which two products of this function represent this trainee's poorest work on this function? Why?

6. Can the trainee identify and explain at least three issues (at least one technical one and one contextual one) in performance of this function? Summarize.

7. How does the trainee's present general competence on this function compare (ABOVE, SAME, BELOW) to:

    7.1 Himself, before entering this training program
    7.2 Other trainees, before this training program
    7.3 Other trainees in his region, at present
    7.4 Persons holding jobs comparable to the ones sought by the trainee

Table 6: Kinds of Performance with Respect to Types of Content

A. Kinds of Performance

1. List
2. Describe/Report/Summarize
3. Explain/Demonstrate
4. Compare/Demonstrate
5. Elicit
6. Influence/Modify

WITH RESPECT TO

B. Types of Content for Performances

a. (One) or (several) alternatives with respect to the problem situation.
b. Own preferences (attitudes, values, priorities, beliefs) with respect to the (one) or (several) alternatives
c. Consequences for others of the (one) or (several) alternatives
d. Knowledge and preferences of others with respect to the (one) or (several) alternatives

Table 7: Levels of Involvement

1. Observing
2. Reading, Studying
3. Writing, Synthesizing
4. Planning
5. Participating, with supervision
6. Participating, with minimal supervision
7. Directing
8. Teaching
9. Supervising
10. Consulting

Table 8: Operational Definitions of
Degree of Independence of Supervision

1. The trainee will decide and justify whether or not to do the task.

2. The trainee will teach someone (who:________) to do it.

3. The trainee will do it without assistance, from other people or instructional materials

4. Minimal supervision: the trainee will do it with the time and freedom to identify and use resources; and will record what resources he uses

5. Periodic or intermittent supervision: the trainee will do it with advice (from:_________) as to what resources or people to study or consult

6. Constant supervision: the trainee will do it under direct supervision, assistance, or instruction (from:_______________).

Table 9: Operational Definitions of
Indicators of Responsibility

1. The trainee will be responsible for considering, consulting, and freely and professionally deciding whether to get involved in this activity. Who gave this responsibility?_________________.

2. The trainee will be arbitrarily assigned to this project. By whom?______________________.

3. The trainee will be accountable for the entire project. To whom?______________. How will credit be properly given for this responsibility? ______________________.

4. The trainee's involvement in this project will be part of a deliberately planned instructional sequence. Planned by whom?______.

5. The trainee's involvement in this project is in response to an on-site crisis. Whose crisis? _________________.

6. Will the trainee's involvement in this project be in the mainstream of responsibility or as a consultant? ________________________

7. Will the trainee's involvement in this project be primarily:

   a. as an individual generalist
   b. as an individual specialist
   c. as a generalist on a team
   d. as a specialist on a team

____

Table 10: Operational Definitions of Variety of Contexts

1. In classroom
2. At present job site
3. At similar job sites (which: ________________________)
4. At different job sites (which: ________________ _______)
5. With different types of people involved (which:___________________)

Table 11: Alternative Types of "Acceptance Conditions" for Performances

1. Situational
    - 1.1 Observations. Criteria?
    - 1.2 Products. Criteria?
2. Simulated
    - 2.1 Observations. Criteria?
    - 2.2 Products. Criteria?
3. Inferred
    - 3.1 Psuedo-products. Criteria?
    - 3.2 Critiques of sample or artificial products. Criteria?
4. Other
    - 4.1 Self-reports. Criteria?
    - 4.2 Reports of others. Criteria?

Section 3: Instruction, and Instructional Materials

Instruction does not just happen, and not all ways in which it may happen are equally effective for particular people learning to perform particular tasks. At the same time that a trainee is learning some tasks, and some things about project work and professional life, while working at or in a project, there will be supportive or related information and performances which the trainee's adviser will find appropriate to negotiate with the trainee. Some of the alternative supplementary instructional vehicles which could be used, as available and as appropriate, are in Table 12.

As indicated in Section 1 of this Appendix, the training program will have criteria for determining when it has need for development of instructional resource packages. The packages, when developed, will be reviewed by technical experts and will be field tested in this and in other training programs. When possible, the packages will have multiple entry and exit points and will contain alternative pathways. Resource packages will need to include situational assessment instruments as the criterion tests for learning. Budget and manpower allocated to package development will cover the development of these instruments. In general, Year One situational assessment instruments will not be developed for tasks and functions for which resource packages are not developed. In Table 13, some of the types of instruction which may be included in the packages are listed. In Table 14, some of the starting materials available at Teaching Research for package-building (the "C.O.R.D." materials) are listed. In Table 15, the "Evaluation Training Materials" available at Teaching Research are described.

Table 12: Resource and Experience Options

- People
- Books
- Films
- Television
- Lectures
- Institutions
- Staff of R and D Agencies
- Prescribed Activities
- Interactions
- Field Trips
- Independent Study
- Directed Study
- Group Study
- Temporary Involvement in Other Projects
- Temporary Involvement at Other Sites
- Temporary Involvement in the Operations of the Training Program Itself
- Programmed Materials
- Courses
- Directed Role Playing
- Realistic Role Playing

Table 13: Types of Instruction in a Package

1. Lectures
2. Consultants
3. Self-instructional Units
4. Examples
5. Materials
6. References
7. Displays
8. Case Histories
9. Each One - Teach One Units

Table 14: The "C.O.R.D." Materials

National Research Training Institute (C.O.R.D. - Consortium Research Development Program):

The materials under this heading include:

1. The CORD manual and workbook, 2nd edition (currently available from Teaching Research at $15.00/set, less in bulk). Contains eight chapters:

   I. Behavioral Objectives - Frank Nelson and Bud Paulson
   II. Design of Instructional Systems - Paul Twelker
   III. Instructional Systems Development - Dale Hamreus
   IV. Evaluation - Bud Paulson
   V. Measurement - Del Schalock
   VI. Experimental Design - Jack Crawford and Cathy Kielsmeir
   VII. Data Analysis - James Beaird
   VIII. Management of Research - Jack Edling
   IX. Proposal Writing - Jack Crawford and Cathy Kielsmeir

2. A series of individualized, self-paced, multi-media instructional units, with criterion tests and consultant support:

   I. Logic of Statistics
      1. Organizing, Manipulating, and Displaying Data
      2. Describing a Set of Data
      3. Derived Scores
      4. Logic of Tests of Significance
      5. Logic of Sampling
   II. Affective Measures
      1. Q-Sort
      2. Likert Scales
      3. Thurstone Scales
      4. Semantic Differential
      5. Content Analysis
      6. Sociograms
      7. Thematic Apperception Test
   III. Tests
      1. Introduction to Testing
      2. Standardized Tests, Level I
      3. Top Hat Exercise
      4. Standardized Tests, Level II
      5. Why Testing
      6. Individual as a Test
      7. The Criterion Problem, Level I
      8. Homemade Multiple Choice Tests
      9. Achievement Testing
      10. Hypothetical Constructs and their Measures

IV. Evaluation
   1. Non-reactive Measures
   2. Interviews
   3. Developmental Testing
   4. Evaluation Specifications
   5. Measures Selection Criteria
   6. Purpose of Evaluation
   7. Behavioral Objectives
   8. Evaluation PERT
   9. Questionnaire Design
   10. Origin of Evaluation Information
   11. Distribution of Information
   12. Information Processing
   13. Objectivity of Evaluation Data
   14. The Evaluation Context

V. Measures
   1. Measurement and Constructs in Education
   2. Measurement Scales
   3. Trustworthiness of a Measure
   4. Matching Exercise
   5. Criteria for Assessing a Measure
   6. Classes of Measures

VI. Sampling
   1. Fundamental of Sampling; Surveys
   2. Introduction to Sampling
   3. Time and Event Sampling
   4. Selecting a Sample and Sampling Procedure
   5. Sampling Design

VII. Educational Systems
   1. A competency based, field centered, and personalized teacher education program.

VIII. Individualized Instruction
   1. Survey of Approaches

IX. Instructional Systems
   1. Specifying Instructional Sequences
   2. Specifying Instructional Conditions
   3. Application of Learning Principles to Response Specifications
   4. Specifying the Stimulus Situation for each *en route* competency
   5. Relationship Between Research and the Instructional Systems Approach
   6. Overview

X. Information Systems
   1. E.R.I.C.--Educational Information and Retrieval System

XI. Experimental Design
   1. Workbook
   2. PDQ Board
   3. Vocabulary Game #1
   4. General Introduction
   5. Information Yield (P-PICER)
   6. Vocabulary Game #2

XII. Proposal Writing
   1. Proposal Analysis Game
   2. Vocabulary Game; Components Solitaire
   3. Components Application Game
   4. Problem and Objectives Game
   5. Complete Proposal, Simulation Game

Table 15: The "Evaluation Training Materials"

This discussion will refer to the materials needed for evaluation training, since this area is the one which we have most nearly ready for use in the proposed training system. Presumably, the same kind of approach will be followed for materials for development training.

1. A set of specific function areas in evaluation has been identified, parallel to a set of general function areas in educational improvement.

2. A set of evaluation tasks, in each of the function areas, has been drafted, revised, reviewed, cross-referenced.

3. A set of evaluation products will be easily identifiable, now, as will indicators and examples of assessment procedures.

4. A Teaching Research evaluation manual (see Item 15, below), organized in a format parallel to that of the list of specific function areas in evaluation, exists and is currently undergoing revisions for a second draft. The second draft will not only be tied to the function areas, but will be linked to the tasks and products in the context of various alternative overall approaches to each function areas.

5. An annotated bibliography of references covering all the function areas exists, will be updated, and will be organized in various cross-reference schemes for retrieval.

6. Copies of most of the articles and sections of texts referred to in the manual and covered in the annotated bibliography exist and are filed at Teaching Research.

7. These materials, in their present state, have been used in workshops in various ways, and needs have been identified for specific slide-tape, textual, experiential, and model materials.

8. Cost estimates for various levels of further improvement of the materials are practical to derive because of the experience we have had to date.

9. The ways in which the materials function, in workshop, individualized, and field settings, are becoming clear with increasing utilization of the materials for these purposes.

10. The negotiation and assessment procedures and materials for use of this evaluation training system are being developed and tested and modified in Teaching Research's RED Train project, of which Dr. Saslow is Project Director.

11. The ways in which trainees, materials, and resource persons may be matched and brought together, and the costs and benefits of various alternatives, are also being explored in RED Train.

12. It has taken over a year of part-time work on the part of a team of about 10 people (the Teaching Research Evaluation Program) to bring this system of materials, and procedures for use of this system, to its present state. Presumably, the scale of the effort in the development area of training for educational improvement would be of a similar magnitude, and reasonable cost estimates, assuming that a competent team can be put together, should not be too difficult to produce.

13. This is not to say that the evaluation training system, in its present form, is "ready" for use in our proposed RDDE training system. An amount of effort at least equal to that which has already been put in, will probably be required. That means that a decision may have to be made about the phasing and intensity and relative funding of (1) an effort to get the evaluation materials from their present intermediate state, to a state of usefulness on opening day in September 1971 and (2) an effort to get the development materials to their intermediate state by September 1971 or February 1972 and to a state of usefulness by September 1972 or February 1973.

14. The matrix of RDDE vs function areas suggests that, at both the task and the function level, some modules of the evaluation and the development system will be identical or similar

15. A Strategy for Evaluation Design. The materials under this heading include:

1. A manual designed to facilitate understanding and communication of evaluation needs and concerns between evaluators and non-evaluators. Prepared for 1970 workshop pre-session of the Leadership Training Institute at the annual convention of the Department of Audiovisual Instruction of the National Education Association. - First printed edition available May 1, 1970. Contains seven chapters.

I. Purpose of Evaluation (why does something need to be done) - Michael Saslow
II. Defining the Context (what is the situation; what is to be done in this environment) - Frank Nelson
III. Origins of Information (what sources can be used) - Martin Birnbaum
IV. Instrumentation (selecting the tools to get the information) - Thomas Lyons
V. Information Processing (using the tools and the information; design and analysis) - James Walter
VI. Distribution of Information (how, when, and where to feed back what) - Gerald Gage
VII. Evaluation as a Management Methodology (how to use the analyzed information) - Robert Lange

16. Instructional packages in these and derivative areas are under development. These will include:

- I. Specifying a Behavioral Objective (ABCD)
- II. Source Materials for Behavioral Objectives
- III. Developmental Testing
- IV. Formative and Summative Evaluation
- V. Comparative and Descriptive Evaluation
- VI. Critical Incident Methodology
- VII. Need Assessment
- VIII. Use of Group Exercises in Instructional Systems.

APPENDIX E

TASK BREAK-OUTS

Sections

1. Educational Improvement: RDD&E as Problem-Solving, Product-Generating, Strategies
2. Derivation of the Task Break-outs
3. How to Read the Task Break-outs
4. The Specific Problem-Solving Functions in Educational Development and Educational Evaluation
5. Break-out of Tasks in Educational Development
6. Break-out of Tasks in Educational Evaluation

SECTION 1. EDUCATIONAL IMPROVEMENT: RDD&E AS PROBLEM-SOLVING, PRODUCT-GENERATING STRATEGIES

The Conceptual Scheme for the Tasks of Educational RDD&E

If a classification of specific tasks in educational RDD&E is to have utility in these training programs, it must have the capacity to be used to support generalist training, as well as specialist training; and it must illustrate the variety of possible project contexts in which a particular kind of training might be received.

Such a scheme would have the following characteristics:

1. It should be exhausive of the range of tasks in RDD&E
2. It should illustrate parallel tasks among RDD&E
3. It should identify tasks which are specific to RDD&E
4. Each task should be tightly coupled to observable products

We have developed a scheme with these characteristics. A discussion of each of these criteria appears on the following pages, followed by the actual scheme.

Exhaustiveness

The need for an exhaustive formulation is self-evident. It arises from a wish to construct a flexible program, adaptable to individual trainees and sites, yet describable and accountable. That aim could not be achieved without an exhaustive matrix of educational improvement tasks, various subsets of which will usefully describe trainee and employer positions as to achievements, plans or aims.

In many of the formulations of, and differentiations among, educational RDD&E examined for the preparation of the lists of tasks to be presented later, deliberate or accidental selectivity resulted. Presumably, such a result arose from factors in professional training and experience, institutional priorities, academic prejudices, field rigidities, and so forth. In deriving the present display of the tasks of educational RDD&E the design group has tried to surmount these problems by a cross-referencing procedure and by proposing that additional cross-referencing be carried on in the future. The cross-referencing should involve inputs from trainees, trainers, employers and traditional manpower forecasters on a regular basis.

Illustration of Parallel Tasks

A formulation which illustrates parallels, similarities and redundancies in tasks across RDD&E is more useful than one which does not. This increases the manageability of training, for a trainee can gain needed experience in any one of several settings. For example, an evaluator-in-training need not be held to acquiring particular data analysis procedures only in the context of an evaluation project when a more accessible research or development project which offers the opportunity to perform that task happens to be available.

Furthermore, such a formulation vastly increases the clarity with which a trainee can identify possible jobs for which his training is appropriate. Such a display makes visible occupational mobility and career advancement possibilities.

Identification of Specific Tasks

A formulation which does not produce valid differentiation to make visible those tasks which are unique to research, development, diffusion or evaluation tasks will be neither useful nor credible. A trainee must recognize that certain tasks are unique to each area.

TABLE 1

DIFFERENTIATIONS AMONG RDD&E IN TERMS OF PRODUCTS

A product is one of the following entities, in a form which may be transported and/or communicated from a project:

AREA OF ACTIVITY	RESULTANT PRODUCTS
1. Research (creation of generalizable knowledge)	Knowledge, which consists of facts, constructs, concepts, laws and theories that can be judged on the basis of the procedures used in their generation and the test of empirical verification.
2. Development (production of reliable technology)	Technology, which consists of procedures, materials, hardward and organizational frameworks that have a known degree of success in bringing about a particular outcome or in carrying out a given operation.
3. Diffusion (institution of successful linkage mechanisms)	Linkage mechanisms, which consist of functions and resources which transmit and apply knowledge, technology and information and that can be judged on the basis of product adoption and/or utilization.
4. Evaluation (generation of trustworthy information)	Information, which consists of data that facilitates decision making in a specific context and that can be judged on the basis of the procedures used in its generation and analysis.

Coupling to Observable Products: The Content of an RDD&E Training Program

In the proposed program a person develops a competency by successfully performing a task in an actual work setting. In order to judge whether a trainee has successfully completed a task, there must be some observable "product" to which criteria can be applied. For this reason, the tasks in the conceptual scheme must be tied to specific products to be of value to the training program.

Many papers have been written over the years which differentiate and compare educational RDD&E. Most have examined the aims and objectives of RDD&E less carefully than they have examined procedures, training processes and standards for such training. However, such a point of view cannot bring accountability to the field of educational improvement. Rather, it could be asserted that the valid point at which to anchor the training process for educational RDD&E is the output, or product, end. This is consistent with the approach put forth by Gideonse (1969). In specifying the output end in detail, it is mandatory, of course, that the specifications be forward-looking rather than oriented solely to past practice, and that mechanisms be included for continually renewing the specifications.

For an initial, coarse, product-oriented differentiation among educational RDD&E, a relatively stable set of four definitions is believed to be feasible. This view is emergent in the Clark and Hopkins (1969) manpower report, and it is reflected in the tentative draft technical papers of the Task Force on Training Research and Research-Related Personnel of the American Educational Research Association (1970). Also, it is the basis for the current RDD&E survey and site visit project sponsored by the U.S. Office of Education. The operating definitions are in Table 1. They specify the content of an RDD&E training program, in the sense that trainees should be trained to produce the appropriate products.

SECTION 2. DERIVATION OF THE TASK BREAKOUTS

A Problem-Solving Formulation

The approach which has been taken in order to produce a classification scheme which meets the above criteria is based on the observation that educational RDD&E activities are directed at the solution of problems. The issue then becomes one of defining a set of functions, stages or steps that adequately cover problem-solving activities in general. If the logic is correct, application of the categories to educational RDD&E will result in a classification for tasks which meets the criteria given in the preceding paragraphs.

The set of categories into which we have clustered problem-solving activities is similar to that which one often uses in writing about a project. The categories have been applied to various lists, surveys and alternative structures in the literature or otherwise and appear to be consistent with or simply related to the categories of most of these sources. It should be understood the order of the categories is the order common in many proposals and reports, but it does not necessarily signify that one always plans or executes the activities in the particular linear order used here, nor does one necessarily plan or execute them one at a time. The categories have been reviewed repeatedly by the Working Council and consultants. They fall into three general activity sets: Planning, Implementing, and Interpreting.

The set of categories is given in Table 2. Detailed definitions and subcategories are being prepared and applied to RDD&E. It appears to be the case that the categories, as developed, are exhaustive; illustrate both similarities and differences across RDD&E; can be tied to products, and have neither too few nor too many members in each cell.

TABLE 2

GENERAL FUNCTIONS IN EDUCATIONAL IMPROVEMENT*

.1	Problem Recognition and Articulation
.2	Identification of External Parameters and Conditions
.3	Analysis of Internal Operational Needs and Constraints
.4	Resource Identification and Acquisition
.5	Resource Adaptation
.6	Application of Initial Products
.7	Processing of Results
.8	Interpretation, Recommendation, Decision to Recycle
.9	Production of Final Products
.10	Distribution
.11	Management

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*These general functions fall into three general sets: Planning, (functions 1,2,3, and 4); Implementing, (functions 5,6,7, and 11); and Interpreting, (functions 8, 9 and 10.

If Tables 1 and 2 are combined with one column reserved for the problem-solving functions, Table 3 is the result. Each of the 44 cells will contain sets of particular tasks linked to products. The successful production of a set of products, linked to the tasks, can result in an overall competency rating for a trainee in the activities of that cell.

TABLE 3

MATRIX OF FUNCTIONS IN RDD&E ILLUSTRATING NUMBERING SYSTEM

		Area of Activity				
		0. General	1. Research	2. Development	3. Diffusion	4. Evaluation
.1	Problem Recognition and Articulation	0.1	1.1	2.1	3.1	4.1*
.2	Identification of External Parameters and Conditions	0.2	1.2	2.2	3.2	4.2
.3	Analysis of Internal Operational Needs and Constraints	0.3	1.3	2.3	3.3	4.3
.4	Resource Identification and Acquisition	0.4	1.4	2.4	3.4	4.4
.5	Resource Adaptation	0.5	1.5	2.5	3.5	4.5
.6	Application of Initial Products	0.6	1.6	2.6	3.6	4.6
.7	Processing of Results	0.7	1.7	2.7	3.7	4.7
.8	Interpretations, Recommendations, Decision to Recycle	0.8	1.8	2.8	3.8	4.8
.9	Production of Final Products	0.9	1.9	2.9	3.9	4.9
.10	Distribution	0.10	1.10	2.10	3.10	4.10
.11	Management	0.11	1.11	2.11	3.11	4.11

*Each cell contains a list of specific functions, tasks, and products. See Table 4 for an example of this cell.

In words, Cell 3.7, for example, would contain the tasks and products involved in processing the results of an attempt to employ diffusion; [the Processing of Results function (.7) in a Diffusion Strategy (3.)] Cell 4.1, for example, would contain the tasks and products involved in recognizing and articulating a problem for which evaluation was useful. [The Problem Recognition and Articulation function (.1) in an Evaluation Strategy (4.)] A complete breakout of the tasks and products of Cell 4.1 is given as Table 4 below.

TABLE 4

TASKS AND PRODUCTS OF CELL 4.1

0.1 General Function: Problem Recognition and Articulation

4.1 Evaluation Function: Deciding to pursue an evaluation, rather than a research, development, or diffusion strategy; working with/ as an evaluator. GENERAL PRODUCT: PROBLEM STATEMENT WITH RATIONALE FOR EVALUATION STRATEGY

Tasks and PRODUCTS*

4.1.1 Identify problem features which indicate that the product sought is reliable information for decision making in context: STATEMENT OF EVIDENCE, COMPARED TO CRITERIA

4.1.2 Identify decision-making client: LIST OF ACTUAL AND OF POSSIBLES, EXPLANATION OF HOW CHOICE CAME ABOUT

4.1.3 Determine division of responsibility between client and evaluator: INITIAL CONTRACT OR AGREEMENT

4.1.4 Identify existing evidence as to information needs and priorities of client, and of others involved, with respect to the problem: COLLECTION OF EVIDENCE (DOCUMENTS, STATEMENTS) IN A FOLDER

4.1.5 Identify existing evidence of potential costs and benefits of the evaluation to those involved: ANALYSIS OF EVIDENCE, IN FRAME OF REFERENCE

4.1.6 Identify sources and extent of on-site funding: ANNOTATED LIST OF SOURCES, AMOUNTS, PROBABILITIES

4.1.7 Identify sources and extent of external funding: ANNOTATED LIST OF SOURCES, AMOUNTS, PROBABILITIES, WITH FOLDER OF DOCUMENTS ON HAND

4.1.8 Acquire guidelines, forms, proposals, correspondence: FOLDER, WITH WRITTEN GUIDE

4.1.9 Identify other institutions involved: RECORDS OF CONVERSATIONS REGARDING THIS, AND CONCLUSIONS REACHED

4.1.10 Determine funding available for evaluation: RECORDS OF CONVERSATIONS, WRITTEN MEMOS, REFERENCES TO GUIDELINES, PRECEDENTS, ETC.

4.1.11 Prepare contract: DRAFT OF CONTRACT

4.1.12 Negotiate contract: RECORD OF NEGOTIATIONS, AND THE NEGOTIATED DRAFT ITSELF

*Tasks are in small letters, PRODUCTS ARE IN CAPITAL LETTERS

Any particular row of cells will show some repetition of tasks. The cells in the row "Problem Recognition and Articulation", for research, development and diffusion, for example, contain some of the same tasks as the Problem Recognition and Articulation cell for evaluation (although perhaps different in emphasis), in addition to some different tasks. Such a result helps specify what tasks a trainee will have to do, given an initial array of competencies, and what things he will not have to repeat to reach a given target array of competencies.

Any particular column of cells will also show some repetition. For example, in the evaluation column, the use of a critical incident instrument might be expected in any of a number of functions, such as: .1 Problem Recognition and Articulation; .8 Interpretations, Recommendations, Decision to Recycle, or .10 Distribution.

The Derivation of the Tasks

The list of general problem-solving functions in educational improvement (Table 2) was used to generate parallel lists of specific functions in each column, which served as names for the cells, that is, lists of cell names for the research, development, diffusion, and evaluation columns, which were partly similar and partly different. Such lists of cell names then were used to generate the tasks to fill the cells of Table 3.

Tables 5 and 6 present the lists of specific functions or cell names for development and evaluation, designed for this project, which serve as the basis for the specification and categorization of tasks and products.

Once tentative lists of cell names for the development and the evaluation columns had been prepared, various sources were used in compiling and categorizing the tasks listed for development and evaluation. Once the initial drafts of tasks had been prepared, they were tried with, and critiqued by, members of the Working Council, other staff members of some of the consortium institutions and outside consultants. Components of the critiquing included descriptions of current jobs; forecasts (five to ten years) for projected jobs; predictions of technical trends; and considerations of social and educational needs, values and priorities.

For the initial derivation of the evaluation tasks, the basic structure, outline and listed objectives of the Evaluation Training Materials from the Evaluation Program at Teaching Research were employed. These included the manual. A Strategy for Evaluation Design, edited by Casper Paulson and organized by Frank Nelson. The Evaluation Program's publication, Models for Evaluation: An Introduction was also used. The extensive unpublished lists of behavioral objectives for media training projects assembled by Dale Hamreus of Teaching Research were used. Preliminary listings of product operations in evaluation were then prepared for this project in consultation with staff members of Teaching Research.

The initial derivation of the development tasks employed preliminary drafts of product operations in development prepared in consultation with staff members of Teaching Research; comparison of those drafts with the lists of evaluation tasks; and conferences within the Core Design Group.

The initial lists were then compared with lists presented or derived from the following sources: Baxter (1970); Clark and Hopkins (1969); Crutchfield and Covington (1969); Griessman (1969); Guba and Stufflebeam (1970); Hayes (1959); Hemphill (1967); Horvat (1970); Michael (1970); Nelson (1970); Owens (1968); Paulson (1969); Paulson (1970); Stufflebeam (1970); Twelker (1969); Weislogel, Johns and Rigby (1950); and unpublished drafts of technical papers of the Task Force on Training Research and Research-Related Personnel of the American Educational Research Association (1970).

The purpose of these comparisons was to be as certain as was feasible that the lists were exhaustive; that the tasks were small enough to be substantially independent of each other, and produce or potentially produce separable and identifiable products; that the tasks were large enough so as to avoid the separate listing of highly correlated subtasks; and that the range of tasks was sufficiently robust to accommodate, as subsets, the particular sets of tasks emphasized by various authors in reference to various problems, products and contexts.

The revised preliminary drafts of the lists of development and evaluation tasks were critiqued by members of the Working Council, members of their staffs and consultants. Some of the critiques were secured through interviews, and some were secured through written instruments. These processes are continuing, for the evaluation and the development lists, and will be set up in the future for the diffusion and the research lists which may be needed for this program within a few years.

SECTION 3. HOW TO READ THE TASK BREAKOUTS

The preceding section on the derivation of the tasks explains the relationships between the columns of Table 3 (the areas of activity, RDD&E, Table 1); its rows (the general problem-solving functions Table 2); and its cells, the names of which are the problem-solving functions specific to each strategy (Table 5, for Development; Table 6 for Evaluation). The contents of each cell are the tasks and products of the specific functions (see Table 4, for the tasks and products of Cell 4.1). The task breakouts for the cells of the development area are presented as Section 5 of this Appendix; the task breakouts for the cells of the evaluation area are presented as Section 6 of this Appendix. The numbering system for the breakouts in Sections 5 and 6 is the same as that used in Table 3.

SECTION 4. THE SPECIFIC PROBLEM-SOLVING FUNCTIONS IN EDUCATIONAL DEVELOPMENT AND EDUCATIONAL EVALUATION

As has been discussed previously, the initial focus of this training program will be development, as illustrated by Table 5, and evaluation, shown in Table 6. Tables 5 and 6 are the lists of cell names to be used for the generation of the lists of tasks and products which appear later in this Appendix. These cell names are designated "Functions."

TABLE 5

ELEVEN SPECIFIC FUNCTIONS IN A DEVELOPMENT STRATEGY

2.1 (Problem Recognition and Articulation)
Recognize that products (material or procedures) need to be developed, articulate the need, and decide to work as (or with) a developer.

2.2 (Identification of External Parameters and Conditions)
Identify the values and priorities of the agency that will support the project and the group who will use the project. Draft a plan for developing the product that takes those values and priorities into consideration.

2.3 (Analysis of Internal Operational Needs and Constraints)
Determine materials, content, learning methods, equipment and staff needed to produce the product. Adjust the administrative structure of the project to permit management of these facilities.

2.4 (Resource Identification and Acquisition)
Acquire the production capacity to produce the product.

2.5 (Resource Adaptation)
Develop prototype products or modify existing products into a form that lends itself to testing and revision.

2.6 (Application of Initial Products)
Field test prototype products and collect data on their effectiveness.

2.7 (Processing of Results)
Reduce and analyze data collected during test of prototype materials.

2.8 (Interpretation, Recommendations, Decision to Recycle)
Interpret data and decide whether further development is needed or if final form of product should be produced.

2.9 (Production of Final Products)
Produce final versions of products.

2.10 (Distribution)
(Duplicate and distribute final product, using the various distribution channels and other mechanisms available.

2.11 (Management)
Manage a development project

Table 5 should be compared to Table 3. Table 5 contains the names of the cells of Column 2 of Table 3.

TABLE 6

ELEVEN SPECIFIC FUNCTIONS IN AN EVALUATION STRATEGY

4.1 (Problem Recognition and Articulation)
Decide to pursue an evaluation strategy (as distinct from research, development or diffusion); work with/as an evaluator.

4.1 (Identification of External Parameters and Conditions)
Identify objectives, values and priorities of external funding agencies and external audiences. Determine initial parameters of the evaluation plan; rationales.

4.3 (Analysis of Internal Operational Needs and Constraints)
Analyze, negotiate and assess needs, objectives, values and priorities of project, site, audiences, constituency. Detail the evaluation plan.

4.4 (Resource Identification and Acquisition)
Identify and acquire, if appropriate, data sources and instruments.

4.5 (Resource Adaptation)
Develop instrumentation, and a detailed plan and schedule for use.

4.6 (Application of Initial Products)
Collect evaluation data.

4.7 (Processing of Results)
Reduce, analyze and process evaluation data.

4.8 (Interpretation, Recommendations, Decision to Recycle)
Develop interpretations of results and determine the adequacy of the results.

4.9 (Production of Final Products)
Prepare evaluation reports.

4.10 (Distribution)
Distribute information to decision-makers and audiences.

4.11 (Management)
Use evaluation as a management strategy; manage an evaluation.

Table 6 should be compared to Table 3. Table 6 contains the names of the cells of Column 4 of Table 3.

SECTION 5. BREAKOUT OF THE TASKS IN EDUCATIONAL DEVELOPMENT

The following lists of development tasks represent the content of the cells in column 2, of Table 3, the names of which appear in Table 5. These tasks form the basis of the competency profile for Development. The completion of each task will either be tied to a product or to a set of behaviors easily observable in the field.

0.1 General Function: Problem Recognition and Articulation.

2.1 Development Function: Recognize that products (Materials or procedures) need to be developed, articulate the need and decide to work as (or with) a developer.

Tasks

2.1.1 State a problem and articulate why its solution most appropriately involves development of a product.

2.1.2 Choose the audience and setting at which the product is aimed.

2.1.3 State the problem in a compelling form to gain the interest of teachers, administrators or funders.

2.1.4 Clarify the problem (confer, redefine and set priorities).

2.1.5 Create tentative list of general instructive objectives for the product to be developed.

2.1.6 Survey field for suitable materials that might fill the need.

2.1.7 Create tentative list of indicators that the instructional objectives have been reached.

2.1.8 Create tentative description of materials to be developed.

2.1.9 Confer with colleagues and teachers regarding need for materials, their description, objectives, the context.

2.1.10 Confer with students of the proposed product regarding the product to be developed or the context in which it will be used.

2.1.11 Decide whether or not the problem can be solved.

2.1.12 Select an aspect of problem that is suitable to deal with.

2.1.13 Revise tentative descriptions of materials, list of objectives and list of indicators as a result of conferences with colleagues, students and an analysis of context.

2.1.14 State development objectives in performance language.

2.1.15 Decide the extent to which evaluation, dissemination and research will be a part of the development function.

0.2 General Function: Identification of External Parameters and Conditions.

2.2 Development Function: Identify the values and priorities of the agency that will support the project and the group who will use the product. Draft a plan for developing the product that takes those values and priorities into consideration.

Tasks

2.2.1 Research the characteristics of the students through field study.

2.2.2 Research the characteristics of the students through literature search.

2.2.3 Determine the broad constraints of the setting within which the product will be applied.

2.2.4 Select the specific students who will be employed in trials and use of the product.

2.2.5 State the context within which the students will use the product in order to guide the production of materials.

2.2.6 Refine the performance objective with respect to the characteristics of the students.

2.2.7 Locate field settings, consultants and agencies who will support the functioning of the project.

2.2.8 Locate sources of funding.

2.2.9 Find a funding agency who is most interested in the project.

2.2.10 Prepare a proposal in the proper format for the funding agency.

2.2.11 State instructional goals in terms of the operations and outcomes of developmental objectives.

0.3 General Function: Analysis of Internal Operational Needs and Constraints.

2.3 Development Function: Determine materials, equipment, content, learning methods and staff needed to produce the product. Adjust the administrative structure of the project to permit management of these facilities.

Tasks

2.3.1 Select terminal performance objectives and state them in relation to the audience for the product, the behavior to be learned, the conditions under which the learning will take place and the degree or criterion to be achieved (i.e., an abcd analysis).

2.3.2 Select enabling objectives and state them in terms of an abcd analysis.

2.3.3 Select the content of the enabling objectives.

2.3.4 Determine the sequence of the learning tasks.

2.3.5 Specify the types of learning.

2.3.6 Relate learner characteristics to content, sequence and types of learning.

2.3.7 Determine size of learning unit.

2.3.8 Determine strategy for accommodating individual differences.

2.3.9 Specify instructional strategies.

2.3.10 Identify and assign responsibilities to staff.

2.3.11 Confer with outside persons experienced at developing materials regarding the production needs for the project.

2.3.12 Determine the effect of external demands on resource and staffing needs. (Will skills, etc. be available when you need them?)

2.3.13 Identify marketing and production support capacities.

2.3.14 Establish budgets related to production needs.

2.3.15 Establish budgets related to dissemination needs.

2.3.16 Set timelines for tasks related to people on staff.

2.3.17 Estimate times for producing prototype and final products.

0.4 General Function: Resource Identification and Acquisition.

2.4 Development Function: Acquire the production capacity to produce the product.

Tasks

2.4.1 Compare facilities available with specified instructional strategies.

2.4.2 Conduct technical review.

2.4.3 Determine specifications for diagnostic procedures.

2.4.4 Specify media forms.

2.4.5 Specify step-by-step procedures for reaching each enabling objective.

2.4.6 Determine availability of personnel.

2.4.7 Hire additional personnel and contact consultants as needed.

2.4.8 Provide opportunity for additional training of staff.

2.4.9 Specify alternative instructional methods.

2.4.10 Decide which products to farm out and which to produce inhouse.

2.4.11 Consult with technicians, manufacturer's representatives and others on equipment needed for the project. Have estimates made.

2.4.12 Determine production needs and select or acquire needed equipment.

2.4.13 Determine production site and select or acquire additional space as needed.

2.4.14 Prepare general job descriptions for the staff.

2.4.15 Negotiate contract for jobs to be farmed out.

2.4.16 Specify who determines time schedule.

2.4.17 Arrange for equipment maintenance.

0.5 General Function: Resource Adaptation.

2.5 Development Function: Develop prototype products or modify existing products into a form which lends itself to testing and revisions.

Tasks

2.5.1 Specify performance measures.

2.5.2 Specify design for evaluation of complete performance package.

2.5.3 Prepare a comprehensive description of the unit to facilitate application.

2.5.4 Review specifications for management of instructional package.

2.5.5 Review entire instructional design specifications.

2.5.6 Conduct a technical review of the instructional design.

2.5.7 Review instructional design on basis of technical review.

2.5.8 Review evaluation design on basis of technical review.

2.5.9 Review instructional materials needed and on hand.

2.5.10 Purchase needed instructional materials.

2.5.11 Specify procedures for collection and development of instructional materials.

2.5.12 Develop prototype materials.

2.5.13 Conduct an informal evaluation of the prototype product with colleagues.

2.5.14 Conduct an informal evaluation of the evaluation procedures with colleagues.

2.5.15 Specify methods and means to be used by personnel during trial of instructional prototypes.

0.6 General Function: Application of Initial Products.

2.6 Development Function: Field test prototype products and collect data on their effectiveness.

Tasks

2.6.1 Choose, or advise evaluator to select appropriate population for field test.

2.6.2 Acquire or advise acquisition of population for field test.

2.6.3 Call together producers and evaluators to confer about the field test regarding information to be collected.

2.6.4 Prepare categories of decisions to be made as a result of trials.

2.6.5 State specific questions regarding aspects of the prototypes on which field evaluators will collect information.

2.6.6 Choose or advise in the selection of appropriate procedure for field test of materials.

2.6.7 Arrange for persons to conduct field test.

2.6.8 Inform evaluators and producers of schedule when prototype materials will be ready.

2.6.9 Specify physical environment modification or adaptations (if any) for trial.

2.6.10 Train personnel in methods and means for conducting trial.

2.6.11 Conduct a trial on instructional system componants, collecting informal observational data.

2.6.12 Construct a design for collecting performance data on a form that can be analyzed.

2.6.13 Conduct trial of complete instructional system in a contrived (simulated) real context, collecting formal data.

2.6.14 Conduct trial in actual setting for which the materials are being designed, collecting formal data.

0.7 General Function: Processing of Results.

2.7 Development Function: Reduce and analyze data collected during test of prototype materials.

Tasks

2.7.1 Reduce performance data.

2.7.2 Conduct informal analysis of data and state impressions of the results.

2.7.3 Prepare tables and graphs to display data.

2.7.4 Specify appropriate tests for a set of data (statistical or otherwise).

2.7.5 Interpret the results of tests on data.

2.7.6 Prepare the data to be related to decision-making categories.

0.8 General Function: Interpretation, Recommendations, Decision to Recycle.

2.8 Development Function: Interpret data and decide whether further development is needed or if final form of product should be produced.

Tasks

2.8.1 Reassess the manageability of using the materials in the defined context.

2.8.2 Determine effectiveness of each learning task component comprising the instructional unit (i.e., diagnose which parts are not working).

2.8.3 Determine unrealistic or inadequate product specifications and how to salvage the product.

2.8.4 In consultation with evaluators and persons who set the instructional goals, review and clarify developmental objectives in a form that will facilitate product revision.

2.8.5 Decide whether or not to recycle or to finalize materials on each developmental objective.

2.8.6 Select strategy for recycling ineffective components.

2.8.7 Select strategy for finalizing the product.

0.9 General Function: Production of Final Products.

2.9 Development Function: Produce final versions of products.

Tasks

2.9.1 Estimate quantity to be produced.

2.9.2 Determine best form for production with regard to cost per unit and size of audience.

2.9.3 Select way in which the product will be put into production (type, printer, etc.).

2.9.4 Establish criteria for quality control on product.

2.9.5 Prepare product for publication and duplication.

2.9.6 Design or select packaging of final product.

0.10 General Function: Distribution.

2.10 Development Function: Duplicate and distribute final product, using the various distribution channels and other mechanisms available.

Tasks

2.10.1 Make final reports to funding and supporting agencies.

2.10.2 Solicit expert advice regarding dissemination of the product.

2.10.3 Identify target groups for the product in addition to the original target group.

2.10.4 Identify channels of communication that may facilitate dissemination of the product.

2.10.5 Determine dissemination strategy of product with regard to target group.

2.10.6 Disseminate product information to identified target groups.

2.10.7 Arrange a mechanism for the product to be sent or made available to target groups.

2.10.8 Collect data on how widely the materials are being used.

2.10.9 Select new strategies for product distribution if old are found ineffective.

2.10.10 Adapt product for different functions and target groups.

2.10.11 Arrange copyrights and distribution of royalties.

2.10.12 Arrange sales, sales contracts and determine cost/profit.

0.11 General Function: Management

2.11 Development Function: Manage a development project.

Tasks

2.11.1 State organizational structure of staff.

2.11.2 Assign personnel to project.

2.11.3 State job descriptions, communicate these to staff and monitor the degree to which each person follows his assignment.

2.11.4 Develop patterns of staff interaction that facilitate the job.

2.11.5 Arrange for additional staff training.

2.11.6 State personnel policy of the organization.

2.11.7 Organize fiscal responsibilities (establish budget, assign responsibilities for making expenditures, monitor expenditures and close out the account at project termination).

2.11.8 Determine and initiate quality control procedures on product design, development staff performance and administrative routine.

2.11.9 Examine workloads and adjust them to meet needs and competencies.

EVALUATION TASKS

The following lists of evaluation tasks represent the content of the cells in column 4. of Table 3, the names of which appear in Table 6. These tasks form the basis of the competency profile for Evaluation. The completion of each task will either be tied to a product or to a set of behaviors easily observable in the field.

0.1 General Function: Problem Recognition and Articulation.

4.1 Evaluation Function: Decide to pursue an evaluation strategy (as distinct from research, development or diffusion); work with/as an evaluator.

Tasks

4.1.1 Identify problem features which indicate the product sought is reliable information for decision making in context.

4.1.2 Identify decision-making client.

4.1.3 Determine division of responsibility between client and evaluator.

4.1.4 Identify existing evidence with respect to the problem as to informational needs and priorities of client and others involved.

4.1.5 Identify existing evidence of potential costs and benefits of the evaluation to those involved.

4.1.6 Identify sources and extent of onsite funding.

4.1.7 Identify sources and extent of external funding.

4.1.8 Acquire guidelines, forms, proposals, correspondence.

4.1.9 Identify other institutions involved.

4.1.10 Determine funding available for evaluation.

4.1.11 Prepare contract.

4.1.12 Negotiate contract.

0.2 General Function: Identification of External Parameters and Conditions.

4.2 Evaluation Function: Identify objectives, values and priorities of external funding agencies and external audiences. Determine initial parameters of the evaluation plan: rationales.

Tasks

4.2.1 Review and summarize relevant objectives and priorities of external funding agency.

4.2.2 Contact external agency for clarification of agency priorities and agency view of evaluator's role.

4.2.3 List external audiences for the evaluation.

4.2.4 Specify relative evaluative emphasis that each audience places on inputs, outputs and costs.

4.2.5 Redraft present project objectives, in the light of tasks 1, 2, 3, 4 above, in full objective form (audience-behavior-conditions-degree).

4.2.6 Organize or taxonomize objectives.

4.2.7 Determine the extent to which the evaluator will be playing a change-agent role, in terms of the client and various audiences.

4.2.8 Identify the risks and benefits to the evaluator in task 7 above.

4.2.9 Prepare specifications indicating the extent of "internal" vs "third party" vs "fourth party (audit)" role of evaluator.

4.2.10 Clarify the extent to which the activities to be engaged in are "evaluation" or "research."

4.2.11 Clarify the extent to which "comparative" vs "noncomparative" approaches are to be involved.

4.2.12 Clarify the extent to which "adaptive" vs "formative" vs "summative" approaches are to be followed, and the constraints which various choices will impose.

4.2.13 Perform crude dry-run testing of crucial portions of the evaluation activity.

4.2.14 Review model approaches to evaluation.

4.2.15 Identify applicable model approaches.

4.2.16 Define an evaluation strategy or preliminary plan.

4.2.17 Identify and review key literature regarding the substantive content of the project to be evaluated.

0.3 General Function: Analysis of Internal Operational Needs and Constraints.

4.3 Evaluation Function: Analyze, negotiate and assess needs, objectives, values and priorities of project, site, audiences, constituency. Detail the evaluation plan.

Tasks

4.3.1 With client, given information from Tasks under 4.1 and 4.2, establish final list of decision makers to be served.

4.3.2 Identify criteria and decision processes used by decision makers.

4.3.3 Perform needs assessment.

4.3.4 Identify sensitive areas.

4.3.5 Define the constraints under which the evaluation must operate in light of 1, 2, 3, 4 above, and in terms of information from Tasks under 4.1 and 4.2.

4.3.6 Identify and review "worked examples" of similar evaluation strategies to the one tentatively proposed (Task 4.2.16) applied to similar projects.

4.3.7 Review considerations involved in "experimental" vs "nonexperimental" designs in this context.

4.3.8 Define evaluation priorities with respect to impact, product, process.

4.3.9 Negotiate evaluation priorities with client.

4.3.10 Determine acceptable performance levels.

4.3.11 Specify detailed evaluation objectives, in measurable form.

4.3.12 Specify a plan for distribution of information.

4.3.13 Draft initial evaluation plan.

4.3.14 Review plan with client and audiences.

0.4 General Function: Resource Identification and Acquisition.

4.4 Evaluation Function: Identify and acquire, where available, data sources and instruments.

Tasks

4.4.1 Identify and list alternative sources of information for each aspect of the evaluation plan.

4.4.2 Specify costs and benefits of choices among sources, including constraints imposed by point of entry into project.

4.4.3 Modify models or procedures in the light of Tasks 1 and 2.

4.4.4 Make trial identification of types of instruments and treatments.

4.4.5 Crudely specify costs and benefits (time, money, manpower) of choices among types of instruments and treatments.

4.4.6 Make trial specification of sampling procedures.

4.4.7 Prepare gross evaluation timetable or PERT chart.

4.4.8 Check consistency of evaluation schedule with project schedule.

4.4.9 Review evaluation activities planned in terms of funding provided.

4.4.10 Negotiate adjustments as a result of Task 9.

4.4.11 Specify procedures for administration of the evaluation.

4.4.12 Identify formative or developmental needs for execution of the evaluation.

4.4.13 Determine which measurements will be nominal, ordinal, interval or ratio.

4.4.14 Review information to be gathered and appropriateness of various types of instruments and treatments.

4.4.15 Review reactive vs unobtrusive alternatives.

4.4.16 Review desired characteristics of instruments (relevance, reliability, fidelity, validity).

4.4.17 Review problems in use of instruments (administering, coding, scoring, interpreting.

4.4.18 Acquire those instruments which are available.

0.5 **General Function**: Resource Adaptation.

4.5 **Evaluation Function**: Develop instrumentation and a detailed plan and schedule for use.

Tasks

4.5.1 Construct those instruments which are not available.

4.5.2 Perform assessment of instrument reliability and validity.

4.5.3 Make revisions or changes in instruments.

4.5.4 Perform any major instrument development needed, within available funds.

4.5.5 Recycle trial or dry run of instruments until satisfactory.

4.5.6 Specify procedures for administration of instruments.

4.5.7 Specify procedures and criteria for scoring and coding data.

4.5.8 Specify and negotiate procedures for handling confidential information.

4.5.9 Make final specification of sampling procedures.

4.5.10 Draw samples.

4.5.11 Specify information processing techniques.

4.5.12 Select or prepare programs for data reduction and analysis.

4.5.13 Identify and negotiate responsibility for data collection, reduction and analysis.

4.5.14 Prepare detailed plan and schedule for data collection, reduction and analysis.

0.6 General Function: Application of Initial Products.

4.6 Evaluation Function: Collect evaluation data.

Tasks

4.6.1 Locate the target sources of data.

4.6.2 Review and negotiate social and technical problems of form and procedure in data collection.

4.6.3 Perform data gathering activities; administer instruments.

4.6.4 Record raw data systematically in a complete and intelligible format.

0.7 General Function: Processing of Results.

4.7 Evaluation Function: Reduce, analyze and process evaluation data.

Tasks

4.7.1 Transfer data to stored and protected form.

4.7.2 Summarize data in the categories prescribed by evaluation plan.

4.7.3 Prepare summary graphic data displays such as frequency distributions.

4.7.4 Review evaluation intents (describe, relate, compare).

4.7.5 Prepare crude parametric/nonparametric descriptive statistics of central tendency and variability.

4.7.6 Prepare graphic displays of relationships.

4.7.7 Convert data to form for processing.

4.7.8 Conduct data processing as planned.

4.7.9 Summarize results of data processing into the decision-related categories prescribed by the evaluation plan.

4.7.10 Identify appropriate tests of significance.

4.7.11 Perform tests of significance.

4.7.12 Assemble computational documentation.

0.8 General Function: Interpretation, Recommendations, Decision to Recycle.

4.8 Evaluation Function: Develop interpretations of results and determine the adequacy of the results.

Tasks

4.8.1 Interpret the statistics and tests of the data in terms of decision situations.

4.8.2 Interpret the results in terms of the evaluation objectives.

4.8.3 Interpret the results in terms of the project objectives.

4.8.4 Develop further courses of action for the evaluation of the project.

4.8.5 Develop suggestions for further courses of action for the project itself.

4.8.6 Specify the extent to which the evaluation activities may have been reactive.

4.8.7 Draft recommendations as to the weights to be attached to the evaluation results, for decision making.

4.8.8 Note advisable modifications of strategy for future use.

4.8.9 Prepare initial draft of evaluation reports.

4.8.10 Discuss preliminary drafts with client and audiences.

0.9 General Function: Production of Final Products.

4.9 Evaluation Function: Prepare evaluation reports.

Tasks

4.9.1 Review evaluation context and attitudes of audiences towards evaluation.

4.9.2 Translate outcomes into terms meaningful to users.

4.9.3 Consult funding agency with respect to reporting format and priorities.

4.9.4 Assemble all supporting information and documentation.

4.9.5 Review classes of decisions to be made (intervention, planning, adoption, individual vs group).

4.9.6 Review standards or constraints of evaluation information.
(Usefulness: scientific nature, relevance, significance, scope, credibility, timeliness, efficiency, understandability
Ethical Considerations: candor, confidentiality, scientific caution, professional/client relationships, professional/funding source relationships and professional/profession relationships)

4.9.7 Review distribution media (personal, telephone, written, taped, computerized, multimedia).

4.9.8 Determine the number of different reports to be prepared, and their audiences.

4.9.9 Sort report materials into the sets required for each audience.

4.9.10 Prepare second drafts of evaluation reports.

4.9.11 Proofread and revise reports.

4.9.12 Produce formal reports in required quantities.

4.9.13 Prepare schedule for distribution.

0.10 General Function: Distribution

4.10 Evaluation Function: Distribute information to decision makers and audiences.

Tasks

4.10.1 Implement schedule for distribution.

4.10.2 Monitor implementation of schedule for distribution.

4.10.3 Make followup contacts with client and with all or sample segments of audiences.

4.10.4 Prepare any followup activities and/or documents which appear to be called for.

4.10.5 Review efficiency and effectiveness of distribution plan and note improvements needed.

4.10.6 Engage in specified procedures for assessment of impact of the evaluation report and evaluation activities.

4.10.7 Solicit written comments on the evaluation from the client.

0.11 General Function: Management

4.11 Evaluation Function: Use evaluation as a management strategy; manage an evaluation.

Tasks

4.11.A Evaluate a Management Strategy

4.11.A.1 Apply PERT/critical paths to project plan and to evaluation plan.

4.11.A.2 Apply cost benefit and cost effectiveness analysis to project plan and to evaluation plan.

4.11.A.3 Apply management by objectives to project plan and to evaluation plan.

4.11.A.4 Apply decision-function charting to project plan and to evaluation plan.

4.11.A.5 Apply "adaptive" or adjustive evaluation techniques to project plan and to evaluation plan.

4.11.A.6 Apply "formative" or developmental evaluation techniques to segments of the project plan and/or to evaluation plan.

4.11.B Completing an Evaluation

4.11.B.1 Engage in initial contacts and negotiations.

4.11.B.2 Obtain agreements in principle.

4.11.B.3 Perform initial planning from information gained through the completion of Tasks under 4.1, 4.2 and 4.3.

4.11.B.4 Negotiate contracts.

4.11.B.5 Obtain required qualified personnel.

4.11.B.6 Orient personnel.

4.11.B.7 Train personnel in special procedures.

4.11.B.8 Assign work.

4.11.B.9 Monitor work.

4.11.B.10 Maintain job satisfaction.

4.11.B.11 Determine priorities for tasks.

4.11.B.12 Define and institute quality control criteria.

4.11.B.13 Exercise and delegate fiscal control consistent with agreed priorities.

4.11.B.14 Establish deadlines.

4.11.B.15 Establish work schedules.

4.11.B.16 Monitor and ensure achievement of timetables and criteria.

4.11.B.17 Continually improve procedures.

4.11.B.18 Maintain equity in workload and working conditions.

4.11.B.19 Report progress.

4.11.B.20 Interact with inhouse colleagues.

4.11.B.21 Interact with external colleagues.

4.11.B.22 Utilize, monitor and improve support services.

4.11.B.23 Maintain supportive relationships with project being evaluated, and its audiences, consistent with external and professional constraints and ethics.

4.11.B.24 Analyze structure of project and evaluation activities.

4.11.B.25 Chart decision-making functions in project and evaluation activities.

4.11.B.26 Interact with advisory groups.

4.11.B.27 Coordinate field operations.

4.11.B.28 Negotiate field/center priorities.

4.11.B.29 Schedule and prepare meetings; use them effectively.

4.11.B.30 Use memoranda effectively.

4.11.B.31 Prepare and use forms effectively.

4.11.B.32 Devise a systematic generic scheme for management of contract evaluation activities.

4.11.B.33 Train and delegate client personnel to perform specified evaluation tasks.

APPENDIX F

TASK-PRODUCT LINKAGES AND PRODUCT CRITERIA

The purpose of this Appendix is to explain how we will link specific observable products to the task break-outs of Appendix E. This is crucial to the functioning of the Competency Profile, Appendix D. This Appendix includes presentations of formats for products (Section 1); sample products (Section 2); criteria for products (Sections 3 and 4); and discussions of the problems of internal validity (Section 5) and external validity (Section 6).

Section 1. Product Formats

The purpose of this section is to provide a list of some of the forms which the trainees' products, the key indicators of trainee competence, may take. It is unlikely that the list is exhaustive.

1. Written Materials and Reports (by trainee; by other participants; by staff)
    - 1.1 Item Pools
    - 1.2 Instruments
    - 1.3 Simulators
    - 1.4 Final Reports
    - 1.5 Computer Programs
    - 1.6 Flow Charts
    - 1.7 Directions to users of materials
    - 1.8 File folders of materials, with written guide to their use
    - 1.9 Contracts
    - 1.10 Lists
    - 1.11 Records
    - 1.12 Data Tables
    - 1.13 Position Papers
    - 1.14 Rationales
    - 1.15 Letters of Reply
    - 1.16 Analyses of Situations
2. Dictated or taped reports (by trainee; by other participants; by staff)
3. Audio recording of action

4. Video recording of action

5. Structured observations of action

6. Unstructured observations of action

7. Slides

8. Multi-media packages

9. Conduct of a discussion

Section 2. Sample Products (Sets, Functions, Tasks)

The typical products of educational research, development, diffusion, and evaluation have been described in Table 1 of Appendix E. In brief, the typical product of research is generalizable knowledge; the typical product of development is reliable technology (materials, procedures, hardware, frameworks); the typical product of diffusion is a successful linkage mechanism; and the typical product of evaluation is trustworthy information.

The typical products of the sets of functions of education improvement, (planning, implementing, and interpreting) are plans; data,management structures, and products; and reports.

The typical products of the eleven problem-solving functions (see Table 2 of Appendix E) may be readily worked out. For example, for the eleven specific problem-solving functions of educational evaluation, typical products are as follows (the numbers refer to Table 3, Appendix E)

0.1 General Function: Problem Recognition and Articulation

4.1 Evaluation Function: Deciding to pursue an evaluation, rather than a research, development, or diffusion strategy; working with/as an evaluator

PRODUCT: PROBLEM STATEMENT WITH RATIONALE FOR EVALUATION STRATEGY

0.2 General Function: Identification of External Parameters and Conditions

4.2 Evaluation Function: Identification of objectives, values, and priorities of external funding agencies and external audience. Initial parameters of evaluation plan determined; rationales

PRODUCT: STATEMENT OF PURPOSES OF THE EVALUATION

0.3 General Function: Analysis of Internal Operational Needs and constraints

4.3 Evaluation Function: Analysis/negotiation/assessment of needs, objectives, values, and priorities of project, site, audiences, constituency. Detailed evaluation plan

PRODUCT: REPORT ON CONTEXT, WITH DETAILED EVALUATION PLAN

0.4 General Function: Resource Identification and Acquisition

4.4 Evaluation Function: Identification and acquisition (if appropriate) of data sources and instruments

PRODUCT: SPECIFICATION OF INSTRUMENTS AND POPULATIONS FOR EACH PORTION OF THE EVALUATION PLAN

0.5 General Function: Resource Adaptation

4.5 Evaluation Function: Development of instrumentation and detailed plan and schedule for use

PRODUCT: SPECIFIC INSTRUMENTS AND PLANS FOR THEIR USE

NOTE: For this function, in evaluation, an extensive list, in matrix classification form, of types of instruments, will be used to describe the array of possible products. For other functions, in evaluation, the alternatives are fewer and will just be listed in an organized way.

0.6 General Function: Application of the Initial Products

4.6 Evaluation Function: Collection of evaluation data

PRODUCT: DATA FOR USE IN THE EVALUATION

0.7 General Function: Processing of Results

4.7 Evaluation Function: Reduction, analysis, and processing of evaluation data

PRODUCT: DATA ANALYSIS REPORT, REPORT OF RESULTS

0.8 General Function: Interpretations, Recommendations, Decision to Recycle

4.8 Evaluation Function: Develop interpretations of results and determine adequacy of results

PRODUCT: INTERPRETIVE DISCUSSION OF RESULTS AND THEIR IMPLICATIONS

0.9 General Function: Production of Final Products

4.9 Evaluation Function: Preparation of evaluation reports

PRODUCT: EVALUATION REPORT(S)

0.10 General Function: Distribution

4.10 Evaluation Function: Distribution of information to decision-makers and audiences

PRODUCT: REPORTS RECEIVED AND RESPONDED TO

0.11 General Function: Management

4.11 Evaluation Function: Evaluation as a management strategy/managing an evaluation

PRODUCT: MANAGEMENT PLANS, INCLUDING CONTRACTS, AGREEMENTS, PROCEDURES

Some examples of the typical products of the specific tasks (see Parts 5 and 6 of Appendix E) are given below for some of the evaluation tasks. (The numbers refer to Section 6 of Appendix E, the Break-Out of Tasks in Educational Evaluation.) Note: Tasks are printed in small letters, PRODUCTS ARE PRINTED IN CAPITAL LETTERS.

4.1.1 Identify problem features which indicate that the product sought is reliable information for decision-making in context: STATEMENT OF EVIDENCE, COMPARED TO CRITERIA

4.1.2 Identify decision-making client: LIST OF ACTUAL AND OF POSSIBLES, EXPLANATION OF HOW CHOICE CAME ABOUT

4.1.3 Determine division of responsibility between client and evaluator: INITIAL CONTRACT OR AGREEMENT

4.1.4 Identify existing evidence as to information needs and priorities of client, and of others involved, with respect to the problem: COLLECTION OF EVIDENCE (DOCUMENTS, STATEMENTS) IN A FOLDER

4.1.5 Identify existing evidence of potential costs and benefits of the evaluation to those involved: ANALYSIS OF EVIDENCE, IN FRAME OF REFERENCE

4.1.6 Identify sources and extent of on-site funding: ANNOTATED LIST OF SOURCES, AMOUNTS, PROBABILITIES

4.1.7 Identify sources and extent of external funding: ANNOTATED LIST OF SOURCES, AMOUNTS, PROBABILITIES, WITH FOLDER OF DOCUMENTS ON HAND

4.1.8 Acquire guidelines, forms, proposals, correspondence: FOLDER, WITH WRITTEN GUIDE

4.1.9 Identify other institutions involved: RECORDS OF CONVERSATIONS REGARDING THIS, AND CONCLUSIONS REACHED

4.1.10 Determine funding available for evaluation: RECORDS OF CONVERSATIONS, WRITTEN MEMOS, REFERENCES TO GUIDELINES, PRECEDENTS, ETC.

4.1.11 Prepare contract: DRAFT OF CONTRACT

4.1.12 Negotiate contract: RECORD OF NEGOTIATIONS, AND THE NEGOTIATION DRAFT ITSELF

4.2.1 Review and summarize relevant objectives and priorities of external funding agency: FILE FOLDER OF AGENCY INFORMATION, OTHER LITERATURE, REPORTS; WITH SUMMARY

4.2.2 Contact external agency for clarification of agency priorities and agency view of evaluator's role: RECORD OF TELEPHONE CALLS; MEMOS SENT AND/OR RECEIVED

4.2.3 List external audiences for the evaluation: LIST, WITH EXPLANATIONS

4.2.4 Specify relative evaluative emphasis that each audience places on inputs, outputs, and costs report, based on list of 4.2.3: LIST, WITH EXPLANATIONS

4.3.1 With client, given information from 4.1 and 4.2, establish list of decision-makers to be served: LIST, WITH EXPLANATION

4.3.2 Identify criteria and decision processes used by decision-makers: RECORD OF DISCUSSIONS, INCLUDING TRANSCRIPTS, VIDEOTAPES, STRUCTURED OBSERVATIONS

4.3.3 Perform needs assessment: REPORT, DESCRIBING PURPOSES, INSTRUMENTS, RESULTS, IMPLICATIONS

4.6.1 Locate the target sources of data; LIST, SOURCES BY LOCATIONS

4.6.2 Review/negotiate social and technical problems of form and procedure in data collection; POSITION PAPER OR STATEMENT OF RATIONALE

4.6.3 Perform data gathering activities, administer instruments; COMPLETED INSTRUMENTS

4.6.4 Record raw data systematically in a complete and intelligible format: DATA TABLES

It should be expected that, although the end products of RDD&E are different, the intermediate products of the sets of functions (planning, implementing, and interpreting) and of the functions within the sets will have similarities across RDD&E. This is one of the useful features of the conceptual framework presented in Appendix E. At the level of products of individual tasks, there will be a large number of overlaps, not only across RDD&E, but within functions of R, of D, of D, and of E. Given these features of the conceptual framework, it should be possible to move a trainee rapidly through training, using existing projects as the vehicle, with minimum redundancy and waste of time.

As a further refinement of the analysis, it may eventually prove useful to eliminate as a category the eleventh function, "management," and substitute a column, parallel to R, D, D, and E; and once the specific functions and tasks of diffusion are worked out, it may prove useful to eliminate as a category the tenth function, "distribution," and instead refer to the break-out of diffusion functions and tasks.

Section 3. Criteria for Products of Tasks

The criterion of principal interest, in our operational definition of competence (Appendix D), once technical adequacy of a given product is defined, is the least degree of supervision (continual, periodic, minimal) under which a technically adequate product may be generated by the trainee. There are a number of criteria for technical adequacy which may be applied to a given product. It is important to observe that the numerous products of the numerous tasks are of such a great variety that no single set of generic criteria will possibly apply, in its entirety, to any particular product. Rather, for each product, it will be necessary to specify the most important and relevant ones of the following criteria, and to build real or simulated examples of products which exceed, equal, or fall short of the criteria. Included in the set of criteria for products of tasks are the following:

1. Completeness (list of required Sections)
2. Validity (was the question answered?)
3. Appropriateness/adequacy (too elegant? too crude?)
4. Insightfulness (evidence of informed choice among relevant alternatives)
5. Technical quality
6. Intelligibility to user, to staff
7. Time needed to finish
8. Amount and kind of help needed to finish
9. Met deadline, or good reasons given why not
10. Professional initiative and success in pressing an appropriate solution

Section 4. Criteria for Products of Functions, Sets of Functions, and RDD&E in general

Special criteria relevant to the products of RDD&E in general are as follows:

1. For Research: That the product, generalizable knowledge, consists of facts, constructs, concepts, laws, and theories, that meet the criteria of (1) justifiable procedures used for their generation, (2) empirical testing and verification, and (3) importance.

2. For Development: That the product, reliable technology, consists of procedures, materials, hardware, and organizational frameworks that meet the criteria of (1) a known, and (2) an effective, degree of success in bringing about a particular valued outcome or in carrying out a given operation.

3. For Diffusion: That the product, successful linkage mechanisms, consists of functions and resources which transmit, and apply, knowledge, technology, and information, that meet the criteria of (1) product adoption and/or (2) utilization, with (3) predicted results or evidence as to why predicted results were not achieved.

4. For Evaluation: That the product, trustworthy information, consists of data and value standards that facilitate decision-making in a specific context, and that meet the criteria of appropriate procedures for (1) generation, (2) analysis, and (3) interpretation, and which in fact (4) secure the intended results.

Special criteria relevant to the products of sets of functions (planning, implementing and interpreting) and of the eleven problem-solving Functions, include the following:

1. Has done M of the N types of products (instruments, data analyses, types of reports) of this set or function, at least X of them under minimal supervision, meeting criteria of technical adequacy

2. Can state the rationales associated with Y significant issues in the selection, in various contexts, of Z types of products associated with this set or function

3. Can teach another trainee how to perform P of the Q tasks of the set or function

4. Has done V of the W tasks of the set or function

Section 5. Internal Validity

The concern addressed by this section of this appendix is the quality of our assessment procedures in terms of the degree to which they measure the things which they are supposed to assess. We begin from a basically strong position in that we are assessing the present performance of tasks or aggregates of tasks by applying criteria to products. That is, little inference is involved. This is quite different from the situation in conventional classroom instruction in which future performance on aggregates of tasks is predicted, and number grades assigned, from paper and pencil examinations several levels of abstraction removed from concrete products.

In other words, as far as the measurement literature is concerned, we are operating in a nearly ideal, low-inference, situation. The only serious question is the reliability with which, in our training program, the criteria will be applied to the products. Let us state, however, before examining that question, that, since our measure is a powerful, low-inference, one, unlike conventional measures of competence, looser specifications for reliability are tolerable, for practical purposes, than in the conventional situation.

As for the reliability issue, the major mode of assessment will be ratings assigned by the trainees themselves and by the staff to trainee products and performances. Classically, ratings made on two or three point scales, as with our "level of supervision criterion" (Appendix D), are fairly stable, yet will change in response to changes in the thing being rated.

The problems associated with such scales are problems of shared references or anchoring points, among raters, and problems of systematic biases.

We plan to cope with these two problems directly. The problem of shared references, anchoring points, or criteria, will be worked on by means of

1. Provision of printed statements of criteria, with examples of their use
2. Observation of trained staff, who are using these criteria, by other staff and by trainees
3. Directed role-playing, in which the criteria are identified and their correct application by staff and by trainees is shaped and positively reinforced

The problem of systematic biases, that is, consistently rating oneself or others "too high" or "too low," compared to reality, will tend to be self-correcting, because in the world of project reality, the individual who consistently promises more than he can deliver, or less than he is capable of, will incur the displeasure of those responsible for getting the project completed on time with a high-quality product. If that mechanism does not prove sufficient, role-playing with peer evaluation may be an appropriate, powerful supplement. Preliminary reports from the A.E.R.A. Task Force on training, regarding test-retest reliability of self-ratings of competence, are more encouraging, however.

The number of tasks for which a given trainee will be held accountable is large enough that occasional unreliability or bias on a few tasks, arising from imperfections of the raters or from inadequacies of the lists of tasks or criteria, can be tolerated. This is quite different from the usual academic situation, where spuriously fine-grained "grades" are applied to a very few tasks. Rather, we have here a situation in which coarse-grained ratings are applied to a large number of small unit tasks, virtually continuously. It is important, in raising conventional questions about our assessment procedures, to notice that our situation is not the conventional one, and that what might be intolerable there may be acceptable here.

A further mechanism for improving the quality of our assessments will be the application, on a sampling basis, of situational and simulation assessments as a back-up and check for the usual self-ratings and staff ratings. These back-up techniques, as well as directed role-playing, will be used for training the staff as well as for training the trainees. Both these techniques can be highly effective.

In addition to the mechanisms described for assessment of performance of tasks, and in addition to the asserted inherent virtues of the approach, it should be pointed out that the performance of strings of tasks will be assessed by examination of the quality of products of functions, with the application of multiple criteria on a fairly large number of dimensions (Sections 3 and 4 of this Appendix). Moreover, whereas much of the rating on products of tasks will be done by self-rating, the rating on the products of functions will be done by staff rating.

We have spent some time examining a number of other issues in this matter of assessment.

For example, one may rate both the quality of a product, and the degree of independence of supervision under which is was produced. Then, however, one must ask, is a product of quality rating 1 and independence rating 2 to be treated as equivalent to one of quality rating 2 and independence rating 1?

In many such cases, decisions may be simplified by specifying a minimal rating on one scale, say, quality, below which a particular product will not be considered as "scored" regardless of its score on another scale, such as independence. That is to say, there is no reason why, faced with a huge, multi-dimensional array of possible numbers, we should not be able to find rationales for practical, working simplifications, instead of getting hung up on details which will make no improvement in the training, and will burden participants and trainers with excess work. As one statistics book puts it, "You don't need a razor to cut butter".

There has been a good deal of discussion in our planning activities of whether and how numbers should be assigned, aggregated, and analyzed with respect to tasks. Various technical issues of scales, metrics, and the utility of spending time and effort on developing valid weights are under discussion. For example, we have used three levels of "supervision" on the "profiles" we have prepared. What is the spacing between each pair of levels? Should judgments of levels be weighted differently depending on who makes the judgments?

We are continuing to work on the technical problem of combining categorizations on several scales. We need to obtain, and blend with other data, scores referring to frequency of performing tasks and functions; quality of performance of tasks and functions; and the ability to teach specified others how to intelligently perform tasks and functions. We need to have a way to reliably predict what new tasks one will be able to learn easily, given the ones one knows; and to describe, in a flexible, valid way, the importance, over a set of tasks, of having the beginning trainee learn some specifications early and some later.

The problems discussed here are solvable in principle. It is not clear, however, that it will be useful to solve them. If task analysis in detail has to be matched with precise assessment in terms of minute, multiple, finely divided categories, the training system may be unworkable. It is very likely that evaluative sampling of task performances, combined with trained and evaluated self-assessments of simple nominal and ordinal kinds, will lead in a more manageable direction. There is a kind of information overload or uncertainty principle problem here, similar to that in factor and cluster analysis--the larger the number of variables (tasks, functions) that one has, the smaller is the number of levels on each that is useful or practical. This leads us to an emphasis, then, on simplification of criteria; holding many criteria (minimal supervision, for example) constant, at a high level, for the purposes of exit assessment, while assessing quality; holding fewer criteria constant, however, in planning training (that is, quality would first be assessed under high supervision, then under periodic supervision, then under minimal supervision).

As an overall check on what is happening with respect to particular tasks or functions, especially any which seem to cause a lot of difficulty, we will be prepared to collect evidence regarding positive and negative critical incidents, and their relative frequencies, in connection with those tasks or functions, from trainees, staff, and other personnel at the sites, including both those sites at which the trainees are having the difficulties and those sites at which they not. Additional reference groups, outside the training program sites, may also be appropriate.

Section 6. External Validity

The concern here is with the validity of the lists of tasks derived and presented in Appendix E. There are two kinds of issues: current validity and future validity. Both issues speak to a need for review and renewal mechanisms, so that the lists will be continually tracking, indeed forecasting, the demands of future jobs which our trainees are likely to fill. Clearly, lists which look only at former and present job slots, lists which describe what present occupants of such job slots do, will not be very useful for preparing trainees for what should be done now, or for what will be needed five years from now. The invitation to submit training proposals such as the present document is the result of focusing on what is not being done.

In seeking to avoid total entrapment by the past and the present, we have taken a number of steps. First, the lists of tasks were generated and classified on the basis of a general, logical conceptual framework, rather than by starting with the question "what do people in RDD&E do?" The general conceptual framework forced us to describe tasks to fill cells of the framework which the lists provided by other writers, who started with the questions "what do people in R do? in D? in D? in E?" failed, on inspection, to cover. In other words, our lists contain a larger set of tasks than those normally engaged in by most present practitioners.

At the same time, if one discusses our lists of tasks with staff members of organizations which are in the lead, nationally, in development or in evaluation, the tasks do not seem to be preposterous. Those which are done infrequently or not at all often lead to reflections such as "sometimes we really should be doing that one". It is also clear, from such discussions, that the lists accommodate many views of what an evaluator or developer is. The profiles of evaluation generalists obviously differ from the profiles of measurement specialists, statisticians, monitoring experts, or certification experts; the profiles of imaginative materials developers obviously differ from the profiles of curriculm specialists, programmed learning experts, or media specialists.

It is our impression, therefore, that for the next few years, despite minor inconsistencies and problems of heterogeneity of task size, complexity, and difficulty, these lists will be usable for the purposes described in Appendices D and E. Moreover, by keeping track of which ones are actually used in the better efforts in the field; which ones are so quickly learned that they should be combined; which ones are so slowly acquired that they should be subdivided; we will be able to improve what we will begin with. Obviously, the lists are not "perfect", in the sense of complete isomorphism to present or near-future jobs. However, the detail is great enough, the grain is fine enough, and the tasks sufficiently numerous, that a few errors or omissions here or there will be of little consequence to the quality of training, especially if, thanks to the sheer quantity of tasks, the assessment of performance of each individual task is constrained to involve only a few levels of decision on a small number of critical dimensions. This being the case, we are not disturbed by the observation that "you don't know whether your lists are valid". It seems clear to us, on the basis of the logic outlined in these paragraphs, that the lists are valid enough for us to proceed given the importance of the problems which this training program is designed to solve.

The problems that this training program will face will not center on these lists of tasks. Rather, they will center on developing manageable procedures, accessible materials of high quality, cooperative consortium relationships, and on the understanding of how to use a detailed framework of tasks for planning training in such a way as to produce integrated professionals of real breadth and versatility who can select and assemble tasks creatively.

APPENDIX G

ABILITY OF THE INSTITUTIONS IN THE CONSORTIUM TO FULFILL THEIR ROLE

The institutions which compose the consortium that will make the training program operational are all presently engaged in educational programs utilizing a field-centered approach. It is evident from their present operations that these agencies are committed to and experienced with this type of training program. Staff members functioning in these programs will contribute a wide range of experience and background as consultants to the staff that will direct this program. In actuality, the field-based model of this training program for developers and evaluators is an extension of the numerous field-centered programs now being conducted by consortium members.

Teaching Research

The Teaching Research Division of the Oregon State System of Higher Education, in Monmouth, Oregon, serves the public elementary and secondary schools, and the two-year, four-year, and professional schools of higher education in the State of Oregon. It is an inter-institutional instructional research, evaluation and development agency. In addition, the Division is extensively involved in out-of-state and federally-funded projects.

Teaching Research has a professional staff of approximately 65, with additional media production specialists and support personnel. Total staff is approximately 100. During its ten years of operation, the Division has undertaken more than 100 projects. The annual budget exceeds $1 million.

Activities at Teaching Research are decentralized, management responsibility is shared, and there is ample opportunity for meaningful professional identification. Not only does each individual have the opportunity to work within the project and program of his choice, and do so within a group of manageable size, but he is also free to initiate projects or programs that are reflective of his interests. Furthermore, he is free to move across projects or programs in pursuit of that which is personally and professionally most relevant.

Particular, Relevant Experiences of Teaching Research

The Division has had considerable experience in the preparation of instructional materials that deal with research, development and evaluation concerns as well as in conducting institutes for the training of personnel around these activities.

CORD Training Institutes. In the spring of 1967, the Division applied to the U.S. Office of Education for a grant to conduct a national research training institute for small college participants in consortium research development (CORD) projects. A separate proposal was submitted to the U.S. Office of Education for a project to develop a program of materials for short-term educational research training programs. As a result of this effort, several training institutes were conducted across the United States and a set of instructional materials was produced.

ComField Project. Another endeavor which is related to the proposed program was the ComField effort (Competency-based, Field-centered). This project was in two major phases. It dealt first with defining a model elementary teacher-education program. Teaching Research in cooperation with other consortium members directed the efforts of the Northwest region, including Alaska, Idaho, Montana, Oregon and Washington. A second phase of this work translated the model specifications into feasibility plans for the model teacher-education program to be implemented at Oregon College of Education.

RED Train Project. The RED Train project is an extension of some of the experiences gained from the CORD activities. It deals specifically with providing research, evaluation and development training for personnel in school districts in Oregon. The instructional program takes place largely in the actual work settings of the trainees. This project is still ongoing and will result in a cadre of trained research personnel in several school districts in Oregon as well as a set of training materials appropriate for the elementary and secondary personnel level. It has employed a field-centered, competency-based, individually-negotiated approach, particularly in its second year, utilizing the Evaluation Training Materials described in the project below.

Evaluation Training Materials Project. Another project that will contribute to this proposed program is the production of a training manual in evaluation. Its focus is the strategy of evaluation design.

RDD&E Base Project. This spring, the Division was awarded a contract from the Office of Education to generate information to support long-term planning for training programs in educational research, development, diffusion and evaluation.

PPBS Projects. The Division has extensive experience in working with several school systems in the planning and implementation of data-dependent systems for instructional management.

Oregon State University

The Portland Urban Teacher Education Project. The Portland Public Schools and Oregon State University (OSU) are jointly engaged in a program to train teachers of the disadvantaged within a public school setting. Trainees involved are adults who hold a bachelor's degree and are not presently certified as teachers. The racial composition of the group is three-quarters Black, with the remaining quarter Caucasian, Oriental or Indian. This federally funded program, "The Portland Urban Teacher Education Project," has been in operation since June 1969, and will continue at least through June 1971. The program has already produced eighteeen certified teachers out of an original twenty participants, twelve of whom are Black. The instructional program takes place at John Adams High School in Portland under the direction and supervision of personnel who hold joint appointments with OSU.

The OSU-John Adams High School Teacher Education Project. This project is cooperatively supported by the two agencies and represents an alternate approach to existing undergraduate teacher education programs. Juniors in the school of education, largely majoring in industrial education, spend an entire semester resident at Adams. The major portion of the training again is accomplished at John Adams High School under the direction and supervision of personnel who hold joint appointments with Oregon State University.

The OSU-CORVALLIS School District Junior High Teacher Education Project. This project is funded by the Oregon Educational Coordinating Council and the Corvallis School District. It represents a cooperative venture to develop a teacher education complex. Most of the training is conducted in the local junior high schools.

Careers Oriented Relevant Education (CORE). This program, operated by OSU, is a federally sponsored, three-year project to train teacher aides and teacher associates in a field setting. College students from freshmen through seniors are participants in the project. Teachers and community members are also actively engaged in curriculum modification activities for purposes of designing a curriculum which is more meaningful for children.

National Teacher Corps. The Portland Public Schools and Oregon State University are cooperatively engaged in conducting this federally funded program. The program is designed to train teachers, beginning with the junior year of college, through a combination of on-the-job practical experience and college course work. OSU staff directs the program, and provides the instructional component as well as on-the-job supervision. The Portland Public Schools provides the classroom experience and team leadership of the interns within the school setting.

Other programs of a similar nature are also under way, such as the Contemporary Education Course 211 for college sophomores, Cooperative Elementary Guidance Program, The Effective Group Instruction for Teachers 371X course.

University of Washington

The School of Education at the University of Washington has been involved intimately for nearly twelve years in various forms of field-centered instruction, many of which approximate the model in this design. In the Administration Program, a field placement or internship is required. These internships take place in a wide variety of settings in Seattle and the surrounding school districts, and are carefully supervised by the university personnel.

In undergraduate teacher education, the University of Washington has pioneered the "Intern Center," an agreement with a school district to use a building, or the entire district, as a special training center. Each center has a full-time director, and within the center a performance-based teacher education program is carried on. Approximately 20% of the students in the professional preparation program are enrolled in innovative teacher education projects. These special programs represent an effort to develop and test various conditions inherent in performance-based approaches that provide for continuous field experiences throughout the academic year. Programs are also testing the feasibility of the management system wherein the university and cooperating school districts provide released time for selected school personnel to serve as coordinators.

Special Teacher Education Program. This program is designed to prepare teacher interns in a way which transcends and blends traditional lines between on-and-off campus experiences. It is distinguished by four mutually dependent features for preparing teachers for effectiveness in a modern educational system. These four features are: (1) its clinical nature, (2) its emphasis upon performance-based behavior, (3) its goal of a strong peer relationship among all who assume responsibility for the preparation of teacher interns, and (4) its involvement of participants over a substantial period of time, two quarters for secondary teaching interns, and three quarters for elementary teaching interns.

Special Teacher Education Program: Secondary. This is a clinical seminar involving clinical professors from the campus, cooperating teachers (field associates), and trainees in investigating the topic of strategies of teaching. It is designed to provide interns with baseline competencies organized around a set of themes: objectives, learner characteristics, development of criterion measures, prescription of learning experiences, and evaluation. Interns also participate in a performance-based seminar in learning and evaluation; and, where required, a course in special methods of teaching a subject field.

Renton-University of Washington Teacher Intern Program. This program is a cooperative venture of the University of Washington, a school district, and an education association. It emphasizes a performance-based, field-oriented, systematic, and personalized approach to teacher education. The program covers a two-year period, beginning September of the junior year. A unique management design is utilized during the two years which allows self-direction, accountability for performance objectives, and cooperative decision-making by university students and faculty, school district personnel, and professional organization members. Emphasis is placed on self-management of time, systems analysis in terms of performance objectives, personalized planning, and manageable communication. A stipend for interns is one of the unique features of this program.

Inter-City Program: Garfield High School. This project is administered cooperatively by the university and the central region school district. It is specifically designed to recruit and prepare teachers for assignment at a central area high school; grades 9 through 12. Major emphasis is on recruitment of local and minority group members. Specific objectives are: exposure of interns to the social tensions prevelant within an inter-city school; the interaction of trainees with an environment that will test their personal assets for effectiveness as teachers; and frequent contact between university faculty and the public school personnel on problems related to schools.

Inter-City School: Teacher Corps, Elementary and Middle Schools. The goals of this program are: (1) to prepare teachers for effective work with inter-city children, (2) to develop and employ new approaches to teacher education, and (3) to provide instructional assistance in inter-city schools utilizing individualized instruction techniques.

The experiences provided by the university involve not only professional courses in the College of Education, but also a planned sequence of study with the Graduate School of Social Work, the Department of Anthropology, and the Department of Sociology.

Inter-City School: New Teacher Preparation Program. The design of this program is to prepare selected students for preparation as primary or middle grade teachers. Considerable emphasis is placed upon the recruitment of minority personnel. The concentration of effort toward the selection of minority students differentiates this program from other field-oriented, performance-based, training programs in the college. The factors contributing to the development of this model are: the Decentralized Central Region School Council is supportive and willing to cooperate with the program with this emphasis; the College of Education is desirous of having greater representation of ethnic minorities preparing for careers as teachers; this program is consistent with efforts of the university to admit and provide educational opportunity to minority group members; and there is widespread recognition of a noticeable shortage of qualified minority group teachers available for public school employment.

Certification Plans for Counseling. The Kent School District interim certification plan is one of the pilot programs in the Washington State TTT program. The focus of this program is to place counseling certification on a performance-base rather than on cumulative credits and experiences. The plan emphasizes: (1) developing job descriptions; (2) developing a functional operation framework for integrating the services of counselors, psychologists, social workers, and nurses; (3) identifying realistic and achievable program goals by discipline and by individual work; and (4) developing a basic philosophy on which to hang the interim procedures which is in keeping with the spirit of new certification programs. The Kent proposal is outcome-oriented and encourages the use of modern systems methods in developing programs and evaluating personnel.

Special Education. This two-year project is designed to train experienced classroom teachers to increase their competency in instructing the handicapped child within the regular classroom. Twenty experienced teachers from six schools and three local school districts will undergo training to: (a) develop individualized programs for handicapped children, (b) apply these programs within their own regular classrooms, and (c) similarly assist other teachers in the building. A total of 80 teachers and six principals or school district administrators will be indirectly served, in addition to the number of experienced teachers trained. At least 80 children, whose behavior and/or learning problems pinpoint them as candidates for special education, will be instructed systematically in the regular class over the two years.

University of Oregon

School of Community Services and Public Affairs. The University of Oregon is in its fourth year of operating a new school, "The Lila Acheson Wallace School of Community Service and Public Affairs." This school is committed to undergraduate education for social and public service and is particularly concerned with instructional innovations for practical action in field work. The school prepares individuals for careers in city management, social work, corrections, counseling, community organization, cultural services, community arts development, urban development and applied social research. The keynote of the program is field instruction. Students are provided extensive opportunities to learn through direct participation in ongoing activities of organizations and communities. One full term of field placement is required in conjunction with seminars in "Theory-Practice Integration."

Bureau of Educational Research. The Bureau of Educational Research, University of Oregon, provides field experiences for graduate students in the form of comprehensive studies of schools both within Oregon and other states that contract for these services. Students are provided extensive opportunities to investigate existing school programs in depth. An analysis is made of these programs and specific recommendations formulated for the overall improvement of educational offerings. Graduates who have participated in this program are presently employed as school administrators, researchers and college professors.

Center for the Advanced Study of Educational Administration. This center (CASEA) is housed at the University of Oregon and provides extended involvement opportunities for students in education. Research studies of a national scope have been conducted out of this center. The study of school superintendents, Issues and Problems in Contemporary Educational Administration, is an example of a research project which had a direct influence upon the U.S. Office of Education and its funding programs.

Field-Experience Based Teacher Education Program. This is a pilot program designed to provide the preservice teacher with increased exposure to a public school classroom to develop a broader base of professional experience. The program consists of four steps: (1) observation, (2) instructional assistance, (3) reading tutor, and (4) assistant teacher. During the program the preservice teacher spends a minimum of 800 hours under supervision in the public schools.

Teacher Internship Program. This program is designed to provide selected mature persons with training for teaching in elementary or secondary schools and has been in operation for several years. Interns are placed in the Bethel, Coos Bay, Eugene, Roseburg and Springfield school districts. The program includes:

1. Pre-intern observation and participation in the classroom setting.
2. Several workshop activities including joint planning with the intern's supervising teacher for the year ahead.

3. A full year of teaching with guidance from both the school system and the university.

4. A post-intern summer session.

Teacher Corps Corrections Program. This is a federally sponsored training program that recognizes the causal relationship between schools and delinquency. Interns and team leaders are being trained for careers in teaching and corrections. Seventy-five percent of the junior level students (interns) are from populations now under-represented in the teaching and corrections profession. The interns have three summer sessions of training at the university campus and two years of supervised experience in the field. One year of the field experience is spent in a public school and the other in a correctional institution.

Engelman-Becker Elementary Teacher Training Program. This experimental program is designed:

1. To insure that students have been taught both specific and general procedures for managing children, presenting tasks, correcting mistakes and sequencing instructions.

2. To provide students with direct practice in applying the techniques and principles that are taught.

The Northwest Regional Educational Laboratory

The Northwest Regional Educational Laboratory is a developing institution with a long-range commitment to educational improvement and change through the application of scientific knowledge and technological developments. The Laboratory is a private, nonprofit corporation supported in part as a regional educational laboratory by funds from the United States Office of Education, Department of Health, Education, and Welfare. It is governed by a Board of Directors representing more than 800 public and private educational organizations and business and community agencies interested in the improvement of education within its region of five northwestern states including Oregon, Washington, Idaho, Montana and Alaska.

The major work of the Laboratory is carried out through seven functions consisting of program planning, program development, special programs and projects, communication and dissemination, research and evaluation, institutional relations and administrative support. The programmatic efforts of the Laboratory are divided into four major thrusts and one special program.

Improving Teacher Competencies

Pupil Initiated and Self-Directed Learning. The Laboratory is working in cooperation with the Lippitts at the University of Michigan developing training programs for teachers for the utilization of cross-age peer help.

Pupil Teacher Interaction. The Laboratory has prepared training episodes for teachers in the use of Inquiry Development, Higher Thought Processes, and Diversified Thinking Techniques. Each of these programs train teachers to use approaches which elicit the above kinds of responses from the learner. The Laboratory is now engaged in a program to synthesize and integrate the major teaching episodes represented by these various approaches to better teaching.

Objective Analysis and Planned Change. Under this, two components have been developed for Research Utilization in Problem Solving Techniques for teachers and administrators and the Utilization of Systems Technology in planning.

Interpersonal Relations. Interpersonal Relations has three activities, including programs for the improvement of Interpersonal Communication, Interpersonal Influence, Constructive Conflict Resolution, and Preparing Educational Training Consultants.

Intercultural Program

Reading and Language Development. The major effort in the Intercultural Program at the present time is the development of a complete reading and language development system for use with Alaska natives. The model developed in Alaska for a neglected population is being studied for potential adaptation in the urban setting.

Rural Schools Program

The rural schools program is based on a program to train rural school change agents.

Individualized Instruction and Vocational Education. Individual, self-instructional materials are being designed for use in rural and isolated schools where teachers do not have the special vocational competency. Instructional materials in academic areas for secondary schools are being developed in the fields of mathematics and Spanish.

Instructional Systems for Elementary Schools. These systems are being developed in the fields of art and arithmetic.

Utilization of Modern Technology in Instruction -- Computer Education

These activities center around the development of material for:

1. The training of school personnel in computer literacy.
2. The training of administrative personnel in the utilization of computers for information management.
3. The utilization of computers in curriculum areas, including mathematics, science, social studies, and language arts.

Special Project in Vocational Education

The Laboratory does work on special contract with the Division of Vocational-Technical Education. The purpose of the current project is to identify printed curriculum-instructional materials which are applicable to vocational-technical education in secondary schools, community colleges, adult education, manpower and programs for the disadvantaged and handicapped.

In addition to the above programs, feasibility studies are being conducted in the areas of: Drug Abuse, Vocational Education and Environmental/Ecological Education.

The Portland Public Schools

In addition to its participation with Oregon State University in field-centered teacher education programs, the Portland Public Schools have abundant opportunities for, and experience in, field-centered programs. The projects listed below are potential training projects.
Every year the district supports a massive inservice teacher education program. Summer institutes, as well as evening courses during the school year, are staffed and supported by the district.

Adams High School Project. This is a locally supported experimental high school providing a comprehensive program for students while engaged in teacher education, research and differentiated staffing activities. An EPDA grant from the U.S. Office of Education supports teacher training for differentiated staffing. An EPDA grant through the Oregon Board of Education supports an Urban Teacher Program training 20 persons, 16 of whom are Black. The school is directly linked with institutions of higher education through joint faculty appointments with Oregon State University, Portland State University, Reed College, Lewis and Clark College and Teaching Research.

Follow Through. This program capitalizes upon the momentum given by the Headstart Program. This program serves 430 youngsters in the primary grades at a center located in one of the district's elementary schools. Class sizes are reduced through the employment of additional teachers and aides. Special curriculum materials, field trips and supplementary services are provided.

Grow Project. This project is locally supported and conducted in an elementary school in the district. The objective is to improve the motivation of elementary school students through vocationally oriented activities. Mini-courses are offered to stimulate interest in special activities.

Management by Objectives Project. This is a cooperative project between the Portland Public Schools and the Corvallis Public Schools supported by Title V, ESEA funds. The various elements of planning, programming, and budgeting systems (PPBS) are examined and a manual prepared for use by districts in Oregon to develop such systems.

Metropolitan Learning Center. This is a totally nongraded program serving grades K-12, involving approximately 100 students. Emphasis is placed upon the individualization of each student's learning plan. The total cost of the program is borne by the district.

Residential Manpower Center. This vocational program serving 225 poverty level dropouts is supported by Department of Labor funds. Both residential and nonresidential youth participate in the program which is conducted at the previous Multnomah College site and on the premises of the former Franciscan Seminary at Springfield, Oregon.

Whitaker Program. This program is a multi-school organizational plan encompassing three elementary schools aimed at providing better use of teacher skills and more diverse educational opportunities for youngsters. One school functions as a 6-8 grade level center with the remaining two schools serving as feeders on a K-5 basis. Emphasis is on team teaching, student tutoring, mini-courses, community resources, student-teacher interaction and living laboratory outdoor experiences.

The Oregon Board of Education

Within the last year the Oregon Board has increased its planning and evaluation activities by creating a new section known as the Institute for Educational Engineering with an assistant state superintendent in charge. Many of the undertakings of the Institute will, to a large extent, consist of identifiable projects that emphasize developmental and evaluative activities. Projects that are now underway or in the planning stages that exemplify such activities are:

Program Planning and Budgeting Systems. Models and pilot programs in local school districts and community colleges of Program Planning and Budgeting Systems are being developed. Special federal funds will be utilized to implement such projects which will include the development of procedural manuals and special instructional programs. This overall project has been underway for some 18 months in cooperation with selected school districts and includes input from the state's university personnel.

Model Management System. A project to develop and pilot a Model Management System for teacher education as it relates to the Oregon Board's responsibilities is being planned. This project involves an assessment of ongoing activities in teacher education throughout the state, an analysis of present management systems, identifying a feasible model, piloting elements of the model and eventually implementing a system. With the ever-increasing demands for meaningful decision-making information and evaluative data at the state level, this project is envisioned as a long-range undertaking.

Exemplary Practices in Education. The plans are underway to identify good and exemplary practices in education which can, through acceptable procedures, be established as standard practices. This project will be an ongoing function of the Institute with a periodic publication of findings.

Educational Engineering Practices. The development of an immediate and long-range system for the training and the dissemination of information related to educational engineering practices in Oregon is being planned. The institute's role will be primarily that of a facilitator of the program which will include:

1. The identification of statewide needs.

2. The development of an overall training and education system which will involve school districts, colleges, universities, and the professions.

3. Arrangements for inservice training in the field and the launching of university oriented graduate work.

Evaluative Criteria Program. A project is underway to analyze and improve the entire process now being followed in Oregon and the use of Evaluative Criteria which is developed and sponsored by the National Study of School Evaluation. Presently, a school spends about a year preparing for visiting teams. Some 30 to 50 people spend nearly a week in the school during the visitation. In Oregon, too few of the schools are able to take advantage of the program because of this time period. It is anticipated that this project will extend over a one-to-two year period.

Curriculum Development Project. A project is underway to develop a flexible curriculum design procedure which will be adaptable to various types of programs at many educational levels within the state. Funds have been awarded to the Portland Public Schools to finance personnel in this field. A linkage to the Great Cities program is also being effected. A special grant of funds is being solicited in the curriculum budget of the Office of Education to supplement Oregon efforts. Central to this entire operation is the "occupational cluster" concept now being widely used in Oregon.

OREGON STATE UNIVERSITY
CORVALLIS, OREGON 97331
SCHOOL OF EDUCATION
OFFICE OF THE DEAN

December 8, 1970

Dr. Jerry Fletcher
Adams High School
5700 N.E. 39th
Portland, Oregon

Dear Jerry:

I am herewith enclosing the vitae of Gerry Becker, Ed Anderson, and Wayne Courtney. I think the three of them have the potentiality for participation in the research training program. The exact nature of their participation would have to be determined after all of the details are established.

We would like to consider Oregon State University as a training site in the program. The site would be centered in the Division of Vocational, Adult, and Community College Education and would include the trainees' participating in the developmental and evaluative work connected with the Careers Oriented Relevant Education Program, operating both on this campus and in the Springfield Public Schools; the Cluster Curriculum Task Force, which is operating both on this campus and in selected school districts throughout the state; the Community and Adult Education Development Programs, the Portland Urban Teacher Education Program, and the ICE Program (Instructional Components in Electronics) which is a cooperative instructional program operating with Oregon State University and nine community colleges.

I think all of these programs provide rather rich opportunities for the trainees since they combine both the developmental and the evaluative problems and research components connected with them and involve the developmental and training programs in the University along with the actual field operating units.

I sincerely hope that this information is what you needed.

Very cordially yours,

Keith Goldhammer

Keith Goldhammer
Dean

KG/sm

Enclosures

G-12

UNIVERSITY OF OREGON

School of Education
OFFICE OF THE DEAN

EUGENE, OREGON 97403
telephone (code 503) 342-1411

December 9, 1970

Dr. Jerry L. Fletcher
Chief Executive Officer to the
Interim Governing Council
John Adams High School
5700 N. E. 39th Avenue
Portland, Oregon 97211

Dear Jerry:

This letter will serve to confirm our telephone conversation of Monday, December 7, regarding the College of Education of the University of Oregon's interest in becoming one of the sites for the RDDE proposal which is being submitted. Ken Erickson has assured me that there would be a good deal of interest as well as potential in using the Research Bureau as one of the sites included in this proposal. After having the opportunity to hear Ken and thinking about Dale Bolton's concern of getting immediate close involvement by university faculties in this project, I believe it would be quite important that we be an initial site in this proposal.

You will find enclosed a copy of the vita on Greg Maltby, who I feel might be an individual to be considered for one of the coordinator positions in the proposal. I have reason to believe that Greg would be interested as well as available to fill this kind of slot.

As far as submitting any names of individuals who could be considered for any of the three major positions in the proposal, I don't believe that I have anyone. If you are going to use names as "place holders," then I might be able to suggest someone--Dr. Wes Becker, whose vita you will also find enclosed. There are several other names that I could suggest, but I think that Dr. Becker has a broader range of professional constituencies than any other name I can suggest at the moment. If you are going to use his name, I would appreciate knowing it ahead of time so I could visit with Dr. Becker about it.

Sincerely,

RD Gilberts

Robert D. Gilberts
Dean

G-13

RDG:ea

APPENDIX H

DETAILED SITE/PROJECT DESCRIPTIONS

Summary Report

A total of four possible research training locations were visited and in-depth interviews conducted (see Interview Guide and examples of Detailed Site/Project Descriptions) for this initial phase of the research training site evaluation. These four locations include: 1) the Northwest Regional Educational Laboratory, (2) the Oregon Board of Education, 3) the Portland Public Schools, and (4) Oregon State University. Within these four locations, a total of eleven possible ongoing projects and/or project components were indicated as possible research training sites. Unfortunately, because of time constraints and the absence of many project coordinators and project directors from their project's location, only a small portion of the potential research sites were visited. This was particularly true of efforts to contact the University of Washington and the Center for the Advanced Study of Educational Administration at the University of Oregon. Returns of an initial project questionnaire indicated that numerous possible research projects were in existence at these latter two locations.

Of the eleven ongoing projects where interviews were conducted, mention was made of the possibility for the inclusion of as many as twenty-six (26) interns. These include:

a. the Northwest Regional Education Laboratory (9-10)
b. the Oregon Board of Education (2-3)
c. the Portland Public Schools (10-11), and
d. Oregon State University (2-3)

Of the eleven projects mentioned, ten are presently in a developmental state, with the Portland Public School's GROW project (Growth-Research-Organization-Work) ESEA Title III, operational at the present time.

The Oregon Board of Education's project to assist local school districts in establishing accountability for reaching objectives and the Portland Public School's PPBS plan are perhaps representative of the most recent stages of project development.

The Northwest Regional Educational Laboratory indicated more than a philosophical commitment to the training of research, development, dissemination, and evaluation personnel. At the same time, however, all other projects seemingly have within them areas where training personnel, if available, could function.

Conclusions:

1. While all contacted project coordinators and/or directors indicated a general willingness to participate in the training of research personnel, few guidelines appeared for the inclusion of such a training function.

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2. Most projects appeared to have sizeable financial constraints, if not personnel constraints, which might foreseeably pose some future problems. However, the inclusion of additional research support through an intern program may well counter these in-project constraints.

3. Several project coordinators and/or project directors indicated that their project's present research component was quite weak; one project director sensed that his project's entire research and monitoring system was virtually nonexistent. Much need was indicated for help in project design, instrumentation, data analysis and dissemination.

4. The internal operations of the staffs within these various projects seemed to vary a great deal--from a very loose-knit internal structure to structures with well-delineated lines of accountability. Also, there appeared to be notable variance in the degree to which project directors involved their project's staff in decision making.

5. At least two of the eleven projects appeared to be proceeding on a virtual "trial-and-error" basis. No work flow charts were available, no instrumentation was being used to monitor the project's progress, and the project's outputs were only loosely recorded. These particular projects seem characterized by the original vagueness of the project objectives and procedures and/or by the degree to which the project aimed at furthering particular behavioral objectives largely in the attitudinal realm.

INTERVIEW GUIDE
FOR
OBTAINING DATA TO DESCRIBE PROJECTS

Check materials
provided by directors
(checklist)

(1) Origin

1.1 Who was involved in the conception of the project?
☐ 1.2 Obtain copy of proposal
1.3 What planning took place previous to the initiation of the project?
☐ 1.4 What is the source of support? How much?
☐ 1.5 What is the duration of the project? Starting date, finishing date?
☐ 1.6 How many professional staff members are (will be) involved in the project?
    Part time
    Full time
1.7 Other staff members?

(2) Purpose

☐ 2.1 What is the main focus (or existing need) or product? R,D,D,E
    What secondary things are produced? R,D,D,E
2.2 What changes in educational practices are contemplated as a result of this project? How implemented--who, when?
☐ 2.3 What evaluation procedures are/or will be used? Who plans? Who does?
2.4 To whom is the project accountable?
2.5 Does the project include a commitment to the training of research, development, dissemination or evaluation personnel? philosophical? financial? staff? If yes, then: Who is being trained? For what jobs? Where? Are training objectives specified in measurable terms? What are they? Who chose them?

(3) Context

Describe the internal operation of the staff.
3.1 How are decisions made?
3.2 What are the lines of accountability? Who keeps track of whom?
3.3 To what degree are staff members knowledgeable of the total operation? How is this accomplished?
3.4 What are the constraints to internal operations?
    interpersonal
3.5 What things should be done that are not being done? What needs improvement?
    alternative projects
    need for assistance

3.6 What opportunities exist for intern involvement?
    planning--procedures   PROBE: Number of interns project
    decision making   could use for each function?
    interaction with staff
    data collection--instrumentation
    use of resources
    financial support of interns
    sub-project responsibilities

3.7 If the training element is inserted into the operation, what staff resources could be committed to the training function? On what basis?

(4) Resources

4.1 What resources are used to produce the main product of your project? Where do they come from?
4.2 What resources can we provide that you don't have (training related)

(5) Operations

5.1 What data will be collected? Procedures used? Instruments used? Who is involved? How is data analyzed? By whom? How processed? By whom?
5.2 What materials will be developed? Procedures used?
5.3 What inputs are planned?
5.4 Will there be intermediate products created? Describe.

(6) Production

6.1 How do you monitor progress toward your goal within the project?
6.2 At what stage of completion is the project?
☐ 6.3 Obtain pert chart

(7) Distribution

7.1 What are the plans for communication or distribution of products? Who plans it? Who does it? Who interprets the data? Who writes reports?
7.2 Who are the recipients of products?
7.3 What is the financial commitment to communication and distribution?

(8) Management

☐ 8.1 Project staff--list by title
☐ 8.2 Job description and functions of each
☐ 8.3 Organizational chart
☐ 8.4 Vita of key staff members

GLB:August 10, 1970

DETAILED SITE/PROJECT DESCRIPTION

Example No. 1

Project:	A Statewide Plan for Technical Assistance to Implement Provisions of Title IV, Civil Rights Act of 1964
Project Site:	Oregon Board of Education, 942 Lancaster Drive NE, Salem, Oregon
Project Director:	Mr. Jerry Fuller, Oregon Board of Education, Executive Secretary to the Commission on Intergroup Human Relations

Origin:

The Commission on Intergroup Human Relations was established under the recommendation of the Oregon Superintendent of Public Instruction, Dr. Dale Parnell, and was appointed by the Oregon Board of Education. Aside from the herein discussed project, the Commission's responsibility is to assess the special educational needs of Oregon minority groups, to determine how well existing programs are meeting these needs, and to recommend alternatives for further improvement of such special educational programming.

Initially, the Commission on Intergroup Human Relations was an outgrowth of discussions between Dr. Parnell, various members of the Oregon Board of Education, and the Model Cities Education Committee in Portland, Oregon.

This particular project was submitted for funding to the U. S. Commissioner of Education under the provisions of Title IV, Section 403, Public Law 88-352, Civil Rights Act of 1964. A total of $86,543 in federal funds were requested and received. The initiation date of the project was July 1, 1970, and the ending date is June 30, 1971. A supplemental proposal has been transmitted requesting supportive funds for an additional staff person.

The present project staff includes the Project Director, Jerry Fuller, one full time Assistant Director, and one full time secretary who apparently functions much as an administrative assistant; performing a clearinghouse function for state-wide dissemination of information.

Purpose

Mr. Fuller indicated that the primary concern of the project focused upon an evaluation of what was being done for disadvantaged persons in Oregon. A brochure is being designed to make available a synthesis of federal programs available for the disadvantaged. Concurrent with this, the Commission is charged with the responsibility of getting an ethnic count of the population of Oregon citizens.

The project proposal submits the following general objectives:

> To implement provisions of Title IV of the Civil Rights Act as they relate to problems incident to desegregation in education.

To implement Title IV statewide plan as it applies to all state and federal legislation pertinent to school desegregation.

To identify educational problems incident to desegregation throughout the state.

To assist school districts in adopting and implementing desegregation plans.

To provide assistance to schools in designing in-service programs to deal with problems incident to desegregation.

To assist school districts, teachers and other state and federal agencies in dealing with problems incident to desegregation.

To advise school districts, teachers, and other state agencies concerning problems related to desegregation.

To inform school districts, teachers, and other related agencies about general problems and procedures related to desegregation in education.

To provide technical assistance and consultant services to school districts regarding desegregation and integration plans and attendant problems; regarding in-service programs relating to desegregation activities; regarding improving the quality of instruction and curriculum as they relate to the desegregation process; regarding procedures and techniques, problems and opportunities incident to the integration of classrooms after desegregation has taken place.

To actually promote the attainment of these aforementioned objectives, the proposal indicates that the following procedures will be utilized:

Procedures for providing assistance to school districts, teachers and other state and federal agencies in dealing with desegregation problems.

To collect relevant data to identify educational problems incident to desegregation.

To provide consultants to advise districts on specific problems relative to desegregation.

To advise program directors of federal, state and local agencies regarding provisions of and assistance from Title IV.

To provide the following kinds of services in order to inform school districts, teachers, and related state and federal agencies.

To assist in collection of relevant data as it pertains to school desegregation.

To assist in the development of and distribution of multicultural material designed to facilitate intergroup education as it relates to the desegregation process.

To advise textbook committes in determining adequate treatment of minority group cultures and their contributions to American society.

To give technical assistance regarding desegregation to school districts that have already identified problems.

To conduct conferences and workshops on improving intergroup relations as they relate to desegregation process.

To conduct periodic evaluations utilizing management objectives to test assumptions of integrated education so that unworkable solutions can be set aside and good ideas can be communicated to all districts involved in attempting to solve problems incident to desegregation.

To provide technical assistance and consultant services to school districts regarding desegregation and integration.

To provide consultant services to assist in collecting and publishing information and research findings which will be helpful to education board and school staffs as they seek solutions to problems incident to desegregation.

To assist teacher education and certification institutions to strengthen understandings and skills required for more effective teaching in desegregated classrooms.

To provide guidance and support for school districts developing human relations and intergroup relation units as they relate to desegregation; to provide guidance and consultant services to intergroup personnel and their activities dealing with problems incident to desegregation.

To render other related services incident to desegregation and opportunities as assigned.

Fuller indicated that he saw several potential changes occurring as a result of this project. Since Fuller is, himself, a representative of a minority group and since, as project director, he has direct influence upon and status in the Administrative Cabinet which oversees the Oregon Board of Education, Fuller saw himself as a major minority group influence upon the Board. As a result of his residence, more minority group representatives might well be employed at the Oregon Board in the future. Such persons could fill committee and advisory board assignments.

Additionally, through the Commission on Intergroup Human Relations Fuller reviews all proposals dealing with the disadvantaged that come through the Oregon Board of Education. Through this project, a series of in-state workshops have and/or will be conducted. The first such workshop was entitled "Awareness of Oregon Minority Needs." Other meetings and workshops scheduled include:

"Awareness of Minorities and Problems Incidental to Desegregation"
May 17, 18, 19
Participants: Executive Staff, Oregon Board of Education

"Problems Incidental to Desegregation"
Midsummer
Participants: Supervisors and Principals who will be affected by program adopted by local board March 3, 1970

Three one-week works in conjunction with Oregon State University
Participants: Counselors, Teachers, Administrators

All workshops will have as their theme "Minority Awareness"

Fuller also had direct responsibility for encouraging the State Board's redefinition of bilingual education instruction throughout the state.

Any additional changes in educational practices coming as a direct result of this project will occur along the lines of the proposal's stated objectives.

At the present, no pert chart is available and any project progress seems to be largely evaluated by the project's staff through internal staff meetings and by the Project's staff through internal staff meetings and by the Oregon Board's Cabinet officers. All progress is communicated directly to the State Superintendent of Public Instruction. In addition, the project proposal outlines the following evaluation procedures:

> Equal Education Opportunities' staff will conduct regular evaluation of ongoing programs. By monitoring and evaluating, Title IV staff will establish a communication network with local districts and the community.
>
> A reporting system will be established so as to provide the Title IV regional office (San Francisco) with current, pertinent information and special reports relative to Title IV programs. To further augment this phase, regional staff will also conduct onsite visitations in Oregon. Finally, evaluation will have to be conducted in terms of program objectives.

Lines of accountability include the Federal Government, the Oregon Board of Education, and the Superintendent and Deputy Superintendent of Public Instruction.

While no specific commitment to the training or research, development, dissemination or evaluation personnel was mentioned, the proposal does suggest that such a commitment was intended, although such objectives are not written in measurable terms.

Among such possible research training areas, the proposal acknowledges the following research-related areas:

A. Collect, organize, and disseminate meaningful data and information from ongoing programs.

B. Produce publications and newsletters for statewide distribution.

C. Respond to public inquiries pertaining to problems incident to desegregation.

D. Compile racial and ethnic data with assistance of Research Department and prepare reports to State Board of Education.

E. Develop survey instruments for use in local school districts to aid in assessment of needs in intergroup relations and intergroup education.

Context:

Decisions within the staff are made through collaboration and discussion. Many project decisions do eminate from the Project Director who also has all budgetary control of the project. Since the staff is small (Director, Assistant Director and Secretary) discussions are informal and rigid lines of accountability have needed to be developed.

As project director, Mr. Fuller has overall administrative responsibility for the development and implementation of the State's Title IV Program and is accountable to the Superintendent and Deputy Superintendent of Public Instruction. Other staff members are directly accountable to the Project Director.

Few constraints were mentioned to the internal operation of this project. Interpersonal relations among the staff personnel were regarded as congenial and cooperative. Evidently the secretary functions in a quite significant role, coordinating much of the activity of the staff when both staff members are in the field. Close working arrangements have been established with "all minority groups" in the various Oregon Communities.

Of the constraints which were mentioned, the fact that all operations had to be cleared through the Cabinet of the Oregon Board of Education was regarded as a possible constraint although this has not evidently affected the project's operations adversely to date.

Fuller indicated that much additional work had to be done in the area of curriculum and specifically in the area of curriculum evaluation and revision. Continuous work was needed in all Oregon communities conjunctive with the project's stated objectives.

Several opportunities do apparently exist for intern involvement. Fuller projected that interns could be utilized in data collection, instrumentation, planning and staff interaction roles. The possibility did seemingly exist for intern involvement in sub-project responsibilities. Fuller indicated that one or two interns could easily be inserted into the present project's operation.

If interns were available, staff time could be committed to the training function. Fuller indicated that he would assume partial responsibility for such an in-house supervisory task. Such assistance could be made available on a regular basis for the duration of the project.

Resources:

At the present time, aside from the services of the project's staff, all resources needed for special projects are obtained through sub-contracts. In addition to such sub-contracted services, the project has available to it the immediate resources of the Oregon Board of Education.

There is need for additional resources particularly in the areas of examining existing research, dissemination of research findings, and in field operations. Research interns could be utilized on the ethnic count study mentioned earlier as well as in a research clearinghouse role for the state.

Operations:

Much of this information has been incorporated into the discussion of the project's objectives and procedures. Aside from the evaluation procedures already mentioned, Fuller indicated that much of the data could only be analyzed subjectively since many of the project's objectives purported to obtain behavioral changes; i.e., "How is the Oregon Board of Education different as a result of the presence of a minority group member on its staff?" "Do they act differently?" "Have recognizable changes been made toward integration in the various communities of Oregon?"

Production:

Progress within the project is largely monitored by the project's staff. This is a direct responsibility of the Project Director. No pert chart is being used at this time. "Some time I'm going to learn how to make one," stated the Project Director.

Fuller indicated that he hoped that the project would be ongoing and find the continued support of both the Federal Government and the Oregon Board of Education.

Distribution:

Distribution of the products of this proposal are continuous and state-wide. A bibliography of materials on minority groups is presently being published for distribution.

While the primary distribution points are the various Oregon school superintendents, materials are sent to school counselors, building principals, curriculum coordinators and classroom teachers. More comprehensive materials are made available to the districts which have sub-contracted for the work.

The travel budget for this project amounts to $8,840. Funds were requested amounting to $3,685 and communications and printing costs were estimated at $2,656.

Management:

The proposal calls for the following personnel:

1. Director, Equal Educational Opportunities
2. Consultant, Equal Educational Opportunities
3. One FTE secretary

The job description of the position of Director and Consultant are as follows:

Director, Intergroup Relations

Definition: Performs supervisory work in providing consultative services in the field of school desegregation.

Positions in this class serve as program director or unit supervisor; or are responsible for a broad phase or phases of education normally requiring the frequent coordination and direction of various specialized program services to achieve desired results.

Typical Work:

Serves as special assistant to State Superintendent of Public Instruction in developing plans and providing advisory service to public schools in the area of school desegregation, including curriculum, administration or organization;

Provides consultative services in the establishment and operation of school desegregation programs; assists school districts in administration, planning, financing, building planning and staff utilization; suggests plans and develops them as recommendations for staff consideration;

Supervises unit involved in the administration and authorization of expenditures under Title IV, Civil Rights Act of 1964;

Represents the office of the Superintendent of Public Instruction in the field of educational legislation; makes policy recommendations to Superintendent and Assistant Superintendents; has primary responsibility for direct administration of the State program for school desegregation;

Performs other work as required.

Knowledge and Abilities:

Knowledge of: public school organization and administration; State and Federal laws affecting program; education needs and problems, trends, developments and research; supervisory, administrative, and consultative techniques.

Ability to: lead and stimulate effective teamwork; establish and maintain effective working relationships with school officials, staff and others; communicate effectively, both orally and in writing.

Minimum Qualifications:

1. A Master's degree involving major study in education or educational specialty.

AND

2. Five years of teaching experience, including three years in a supervisory or consultative capacity in required specialty.

OR

3. One year of graduate training in education or educational specialty.

AND

4. Four years of administrative or supervisory experience in the field of education.

OR

5. A satisfactory equivalent combination of experience and training.

NOTE: Standard teaching certificate or its equivalent is required.

Salary Range: $16,684 - $20,000 per year.

Consultant, Intergroup Relations

Definition: Provides technical assistance, program planning, leadership, and consultative service to the public schools in the desegregation of schools.

Typical Work:

Provide expertise in developing surveys and questionnaires to gather relevant data, knowledge of research procedures, and ability to interpret data for dissemination purposes;

Visits schools and informs school administrators and educators of new techniques and materials of instruction through conference, consultation, demonstration, and participation in professional programs;

Provides consultant services to school systems on instructional and organizational matters, methods, and techniques of teaching and related problems;

Develops basic standards and techniques for evaluation and accrediting school school programs and facilities;

Participates actively in State and national professional organizations devoted to improvement of instruction in school systems;

Performsother work as required.

Knowledge and Abilities:

Knowledge of: State and federal laws affecting educational specialty; departmental rules and regulations; public school organization and administration; trends in teacher training and instructional materials; subject matter and/or operational procedures of specialty.

Ability to: Plan and coordinate Statewide educational or service program; delegate, supervise, and evaluate professional and technical work of others; interpret statutory and program provisions to school administrators, teachers, and lay people; maintain effective public relations.

Minimum Qualifications:

1. A Master's degree involving major study in education or educational specialty.

AND

2. Four years of teaching experience, including two years in a supervisory or consultative capacity in required specialty.

OR

3. One year of graduate training in education or educational specialty.

AND

4. Three years of administrative or supervisory experience in the field of education.

OR

5. A satisfactory equivalent combination of experience and training.

NOTE: Standard teaching certificate or its equivalent is required.

Salary Range: $14,250 - $17,250 per year.

DETAILED SITE/PROJECT DESCRIPTION

Example No. 2

Project: Assist Local Districts in Establishing Accountability for Reaching Objectives; Section 402, Title IV, P. L. 90-247

Project Site: Oregon Board of Education, 942 Lancaster Drive NE, Salem, Oregon

Project Director: Mr. Ray Speulda, Oregon Board of Education

Origin:

This project to assist local Oregon school districts in the establishment of an accountability system for reaching their stated objectives is really an outgrowth of the Oregon Board of Education's past high school evaluation criteria studies and district-wide evaluative criteria studies. Under its present format, this proposal projects a planning-evaluation unit of the Oregon Board of Education separate from these aforementioned program services. Rather, an effort will be made to develop accountability systems that will actually provide local school districts with reliable means of district self-evaluation.

Speulda indicated that this revised accountability project was found to be necessary largely because existing limitations of staff within the Oregon Board of Education and the limitations in the standards themselves had not netted the kinds of results or the kinds of information that could answer the questions of those whom the schools serve, i.e., "How effective are our schools?" and "Why are we teaching what we are teaching?"

This project is supported by a grant from the U. S. Office of Education under Section 402 of Title IV, P. L. 90-247. The project period extends from April 15, 1970 to June 30, 1973 and the present federal grant extends from April 15, 1970 to June 30, 1971. At the present time, only Mr. Speulda is assigned to this project. Apart from the actual project director, the proposal calls for the hiring of full-time specialists to function as 1) a management analyst, 2) an educational planner and evaluation specialists, 3) a management-by-objectives specialist, and 4) two secretaries. Sources of funds:

Section 402	$48,000
Title V, ESEA	8,200
State	38,000

Purpose:

The major purpose of this project is to develop and institute an educational audits system for all elementary and secondary education programs, with particular attention to federally assisted programs administered by the Oregon Board of Education. Specific project objectives include:

1. Identifying those elements in the educational program that are objectively measurable or observable. This will be accomplished by June 30, 1971.

2. Develop instruments capable of measuring specific outcomes of instruction provided by local school districts in terms of the objectives they have established. By December 31, 1971, these instruments will have been completed and field tested.

3. Carry out an educational audit of local school districts in Oregon between January 1, 1972 and June 30, 1973. It is intended that each district will be able to coordinate its educational audit and the findings with its management-by-objectives system.

Mr. Speulda indicated that it was his position that this project will reexamine the role of the school in the community both through needs assessments and classroom management studies. He felt that many teachers have been quite inexact in developing the stated goals of their teaching and that an outgrowth of this project will be teachers, more precise in what they are teaching. In addition there's a possibility that teacher preparation (pre-service) and teacher certification may well be placed "in a threatened position subject to total review."

Since a good deal of the proposed project will be conducted in the public schools using self-evaluation criteria, much of the actual evaluation will also seemingly be of the self-evaluative type. These self-evaluation reports will be reviewed by visiting teams of qualified educators. Formal use of the evaluative criteria process will also fulfill the standardization requirement when such evaluation is conducted with the approval of the Oregon Board of Education.

This project is accountable to the U. S. Office of Education and is funded for an amount of $96,000 per year. More direct lines of accountability within the Oregon Board of Education extend to Dr. Leo Meyers, the governing Cabinet of the O. B. E. and to the State Superintendent of Public Instruction.

This project includes a philosophical commitment to the training of research, development, dissemination or evaluation personnel. A direct commitment to train personnel within the O. B. E. who will be directly involved with this project is apparent.

Despite the seeming lack of direct training objectives, Speulda did indicate much receptivity to the supportive training of such personnel within the configurations of the project if such persons were available. The project's staff will include a training office (Bill Loomis) who, along with Speulda and the other staff could offer assistance in the supervision of research interns.

Context:

Speulda indicated that this project had hardly gone beyond the "pre-initial" stages, and therefore, any discussion of lines of accountability (other than those already mentioned), the manner in which decisions are to be made, and the degree to which staff members are knowledgeable of the total operation would be impossible. He did indicate the hope that the staff, when organized, would "enter the project with no preconceived notions, do a lot of trying out, and represent a free-discussion, free-thinking, creative bunch of guys."

While it seemed too early to mention existing constraints with exactness, Speulda indicated that there may be possible financial constraints, making it necessary for staff to work only on a time-available basis.

Resources:

A research model must be developed, getting at measurable elements other than through achievement testing, etc., and help could well be used in this effort. Also, since constant monitoring of the project will be crucial, additional human resources could be used on this phase of the project.

Operations, Production and Distribution:

The phases of the project have not really been clearly planned. It is recognized that these project functions will be planned, however.

Management:

"We are still three months away from this determination," Speulda indicated. Management concerns are only vaguely included within the attached proposal.

DETAILED SITE/PROJECT DESCRIPTION

Example No. 3

Project:	Careers Oriented Relevant Education (CORE): Planning and Piloting a Total State Program of Curriculum Revision Based Upon a Careers Centered Approach
Project Site:	School of Education, Oregon State University, Corvallis, Oregon
Project Director:	Dr. Casmer F. Heilman, Vocational Division, Oregon State University.

Origin:

Careers Oriented Relevant Education, the CORE project, is seemingly an outgrowth of various past efforts to design curriculum so as to "weave together the objectives of the culture, life outcomes, school outcomes." As such, the CORE proposal suggests that CORE is an effort to synthesis the developments made by such other projects as Portland, Oregon's "Personalized Education Program," Milwaukie, Oregon's "Skill Center," the ES70 project in the Portland Public School system, elements of the COMFIELD project, and the past work of the Research Coordinating Unit.

The CORE project was submitted to the U. S. Commissioner of Education under provisions of Section 4 (c), P. L. 88-210, the Vocational Education Act of 1963. A total of approximately $300,000 funds were requested and received. The initiation date of the project was June 1, 1969, and the ending date is May 31, 1972.

At the present, the Central staff consists of a Resident Director (1.00 FTE), a Director (.5 FTE), a Curriculum Specialist (.75 FTE), a Research Assistant (.50), two graduate assistants (.15 FTE each), and one secretary (1.00 FTE).

Purpose:

It is the central goal of the CORE project to develop the basis for a total state program of curriculum division based upon a careers centered approach. The following in-project features tend to lend significance to the project:

1. It proposes a major revision of the curriculum in Grades K-14 in the public schools.

2. It proposes focusing the curriculum on careers, which are tangible, overriding goals toward which learning experiences can be made to point; "career consciousness" will pervade the teaching and learning.

3. It is designed to remove distinction between vocational and academic subjects--a goal sought by both general educators and vocational educators for a long time.

4. It proposes to articulate the new curriculum through all the grades in school as well as through community colleges and four-year colleges, and remove the traditional entry requirements and arbitrary prerequisites now existing at each step.

5. It proposes the modification of teacher preparation and in-service programs to equip teachers to work with youngsters as they progress through the career-centered curriculum together, and is designed to eliminate the separation among teacher education, the State Board of Education staff, and the field. All three will be involved cooperatively in teacher education, curriculum development, and instructional improvement.

6. It proposes a concept of guidance services that replace the counselor-student relationship with a procedure whereby groups of personnel, working with the child as a participant in decision making, will determine sequence and content of the child's program; "total placement" will be facilitated.

7. It proposes arrangements for a statewide planning and coordination, as well as regional planning and piloting, thus building into the project systems of problems identification, research, field testing and diffusion--all within the existing formal structure for public education in the state.

8. It is linked closely with the purposes of ES70, the Vocational Education Act of 1963, the Elementary and Secondary Education Act of 1965, MDTA, and EPDA. The resources available under these programs can conceivably be called upon to advance the proposed concepts during and after the project and, in turn, the findings of the project can contribute to the advancement of the purposes of each of these major programs.

Within this project configuration, the project's "process goals" include:

1. Define specific goals, general characteristics, and specific programs.

2. Define human relationships and interactions essential for

   a. establishing policy
   b. developing management systems
   c. initiating and maintaining programs
   d. preparing individuals to participate effectively in programs
   e. developing information systems for research, review, financial analysis, and overall evaluation.

Piloting:

1. Establish systems for

   a. the preparation of staff
   b. the preparation of communities
   c. implementation of programs
   d. research and evaluation associated with program review

2. Review and restructure

3. Diffuse results through demonstration, intervisitation, publishing printed materials, State Board of Education's adoption of the curriculum, etc.

The Careers Oriented Relevant Education project proposes that through this project's development a greater focusing of the curriculum, grades K-14, will be upon careers, which are tangible, and that "career consciousness" will pervade teaching and learning; that the present distinctions between vocational and academic subjects will be removed; that such a new curriculum can be articulated through all grades in school, community colleges, and the teacher preparation programs in the four-year colleges and universities; and, that the purposes of ES70, the Vocational Education Act of 1963, the Elementary and Secondary Act of 1965, MDTA and EPDA can be advanced.

At the present, Dr. Heilman indicated that evaluation procedures were based in purely descriptive terminology. No evaluation instrumentation has been developed, and no pre-testing was done in the Springfield schools where this project is located. Heilman termed the present evaluation provess as "extremely weak and not well formalized in the proposal."

The CORE project is accountable to the Bureau of Research, the U. S. Office of Education.

The project has only a philosophical commitment to the training of research, development, dissemination, or evaluation personnel. Some assistance, largely in the area of identification of categorical research possibilities, could be provided by the project's staff. It may also be possible for the project to finance the expenses of a research intern if the actual salary of such a person could be paid from some other source. There are no training objectives although Heilman indicated that objectives could be designed and the project would eagerly include a research intern if one were made available.

Context:

At the present, there are four units or unit levels which assist in any given decision-making task. Of these, the project is headed by an Executive Board composed of Dr. Keith Goldhammer, Dean of the School of Education, Dr. Henry TenPas, Director of the Vocational Division, Oregon State University, Dr. Parnell, State Superintendent of Public Instruction, the superintendent of the Springfield Public Schools, and Dr. Kunzman, State Director of Vocational Education. The Executive Board makes final policy decisions and makes few operational decisions.

Below the Executive Board is a State Liaison Committee composed of twenty-two persons from across the state. This is not a policy-making body and its primary concern is project communications. This committee is composed of representatives from the following areas:

Assistant Superintendent, Community Colleges and Vocational Education
Assistant Superintendent, Instruction

Special Consultant (Cabinet Level, Portland Schools, with ES70 responsibility)
Dean, School of Education, University of Oregon
Presidents of Community Colleges (3)
Superintendents of Local School Districts involved (2)
Superintendents of Intermediate Education Districts involved (1)
Representatives of Business and Industry
Representatives of various State Agencies; e.g., Department of Employment (4)
Legislators (2)
Member of the State Board of Education (1)
Members of the State Board of Higher Education (1)
Representative of the Association of Student Governments (1)
Representative of Citizens' Groups (1)
Representative of the Oregon School Boards (1)
Representative of the Community College Association (1)
Representative of the Oregon Association for supervision and Curriculum Development (1)
Representative of the Research Coordinating Unit (1)
Representative of the Oregon Education Association (1)

The third unit in the project's decision-making heirarchy is made up of the project's functionary staff. These staff are involved in planning strategies and in the operational decisions made relative to the project's development.

The fourth unit is a Springfield district Planning Board composed of one teacher and one administrator from each of the four Junior High Schools and two Senior High Schools encompassed by the project, a few parents who provide "minimal input," and the Director of Secondary Education in Springfield.

In the project's annual report, the following problems or constraints were mentioned:

a. Communications among and between the CORE central staff and the pilot school district (Springfield, Oregon) teaching personnel were not complete or comprehensive enough in the early stages of the Project, however, at this date communications appear to be improved and functioning normally.

b. The orientation of the Oregon State University general teaching staffs to the total implications and ramifications of the CORE project appeared to be quite formidable in the beginning phases of the program, but at this later date has become less acute. A possible attitude is now in evidence among the general teaching staffs.

c. The determination of the major "thrust" of resources both financial and personnel within the scope of the pilot school(s) was considered a problem because of the various alternatives evident.

   Examples:

   1. single school (junior high) within the pilot school district.
   2. all four junior high schools within the pilot school district.

3. single grade level in all four junior high schools.
4. single grade level in one junior high school.
5. all grades in all four junior high schools.
6. single discipline in a single junior high school.
7. cross disciplines in a single school or all four schools.
8. other combinations.

Heilman indicated that major improvement could and should be made in the area of the project's evaluation and monitoring. This stands as the primary weakness and the area where intern involvement could be best utilized. Also, research could be conducted in the areas of the effectiveness of community involvement upon the project's stated goals, the development of related materials, a continuation of surveying related literature and related projects, and comparisons of the relative effectiveness of various types of instructional approaches. Within this format, the project could utilize two to three research interns.

The project presently employs a Resident Director as well as a general project director. Between these two persons, assistance and partial supervision could be given to an intern. Additionally, the project's other resources would be available.

Resources:

The resources mentioned consisted primarily of staff resources; composed both of the project's staff and staff from the Springfield Public Schools and financial resources, coming in part from the actual grant, and in part, from the Springfield School District. Springfield has provided approximately $17,000 for released time for staff inservice as well as the assignment of one person to act as coordinator of all materials related to the project's development.

Operations:

Dr. Heilman indicated that this phase of the project's operations was quite lacking. Apparently some data will be collected, some procedures used and some instruments used...however, it was nearly impossible to make these out.

Production:

Progress is monitored on nearly a total observational basis. All such monitoring has taken the form of descriptive commentary (a process-to-react-to-change configuration).

The project was designed in three stages or phases with each phase covering a period of twelve months. Following is a brief description of the primary steps in planning, developing and implementing this project via a three-phase plan:

PHASE I - June 1, 1969, to May 31, 1970, (12 months)

A. Total Administrative and Operational Planning

1. Identify Provisional Co-Directors as Dr. Keith Goldhammer and Dr. Wm. G. Loomis until permanent staff is selected.
2. Initial organization of appropriate governing bodies including Executive Board; Policy and Planning Advisory Council; Project Region Planning Board.
3. Develop job descriptions of Central Staff members.
4. Recruit Central Staff Personnel.
5. Develop job descriptions of Project Region Staff members.
6. Establish framework for development of working relationships among cooperating agencies, including Central Staff, Teacher Education Staff, State Board Staff, other cooperating agencies and institutions, Project Region Staff and Local School officials of the Project Region.
7. Assess pertinent information, data, and curriculum materials in light of the total plan and as partial basis for Project Region selection.
8. Refine all pertinent criteria, arrange appropriate conferences and meetings, and select Project Region.
9. Select Project Region Staff and determine student participation.
10. Develop plan for establishment of a National Board of Visitors (Evaluators) for the project; selection of members to be coordinated with USOE.

B. Program and Curriculum Development Planning

1. Assemble, review and revise data and curriculum materials.
2. Outline in-service programs for Project Region.
3. Plan pre-service program concurrent with in-service plans; coordinate planning with Teacher Education at related Universities.
4. Arrange for release time for local school personnel to work on development of local programs and designs.
5. Develop program and curriculum plans which focus on the Junior High School (7-8 and/or 7-8-9 grades, depending on situations existent in Project Region) level.

6. Development and dissemination of materials.

7. Obtain funds from EPDA or other sources for continuation of pre- and in-service programs.

8. Conduct evaluation of Phase I.

PHASE II - June 1, 1970 to May 31, 1971 (12 months)

A. Administration and Operation

1. Coordinate planning with Governing Boards, Project Region Coordinators, Local School Staff leaders, and Project Central Staff.

2. Reidentify essential cooperative arrangements among higher education, State Board of Education, Intermediate Education District, Community College, and Local School Districts.

B. Program Implementation and Planning

1. Continue design of instructional systems; proceed to implementation of Junior High School program.

2. Total planning for Phase II program focus: High School level.

3. Develop relevant pre-service program for preparation of secondary teachers.

4. Continue in-service programs for Junior High School personnel; design, develop, implement in-service for High School personnel; select High School personnel.

5. Assemble related data and curriculum materials for Phase II focus area; edit, package and disseminate pertinent materials.

6. Continuation of coordinators and pre- and in-service program support.

7. Conduct evaluation of Phase II.

PHASE III - June 1, 1971 to May 31, 1972 (12 months)

A. Administration and Organization

1. Continued coordination with related Boards and agencies.

2. Planning for Phase III focus: Community College and Elementary levels--general organizational and total planning.

B. Program Implementation and Planning

1. Continue design of instructional systems; proceed to implementation of High School programs.

2. Continue teacher preparation programs, both in-service and pre-service for Junior High and secondary personnel.

3. Plan, develop, and implement pre- and in-service teacher preparation programs for Phase III focus; identify Community College and Elementary personnel.

4. Plan Community College and Elementary curriculum programs.

5. Continue collection, revision, dissemination of relevant information, data and materials.

6. Implement follow-up programs from Phase I and II evaluations at appropriate levels.

7. Evaluation of total project.

Teacher Education:

Concurrent developments, adjustments and changes to related teacher education programs are vital to the success of this project. The project proposes the following thrusts as meaningful devices for affecting concurrent relevant teacher education, both pre-service and in-service, and designed as concomitant programs for development of more effective teachers and teacher preparation programs.

1. Student teachers will participate in in-service programs.

2. Teacher education candidates serve as aides at Freshman, Sophomore and Junior levels.

3. Student teachers will be placed in Project Region schools.

4. Full year interns will be placed in Project Region schools.

5. Coordinate local centers with Leadership Development Intern program; place administrative interns in appropriate Project Region centers.

6. Supervision of student teachers, aides, and interns by professional teacher education staff at centers.

7. Provide Teacher Education staff curriculum development and instructional system plans from project on continuing and coordinated basis; involve teacher education staff in in-service programs at Project Region schools.

8. Develop experimental pre-service courses and programs with cooperation of teacher education staff and concurrent with in-service program and course development.

As indicated, Phase II has recently been entered and a Working Paper has just been written focusing upon the implementation of the teacher education phase of the CORE project.

DETAILED SITE/PROJECT DESCRIPTION

Example No. 4

Project:	Planning-Programming-Budgeting System for the District Public Schools, Portland, Oregon.
Project Site:	Portland Public School District, Portland, Oregon.
Project Coordinator:	Dr. Victor Doherty, Assistant Superintendent of Evaluation, Portland Public Schools

Origin:

Of the various programs and projects within the Portland Public School District mentioned as potential training sites for research interns, the newly developed Planning-Programming-Budgeting System (PPBS) was mentioned as the program having the highest possible significance and priority.

The Portland PPBS plan makes the budgeting process itself the means for bringing about changes in the effectiveness and efficiency of the system by providing for budgets to be maintained by school principals and other program managers, thereby placing in their hands the control that is felt necessary to bring about significant in-district change.

Although District and Area personnel are provided to assist principals in planning, the principal himself is expected to generate ideas for improving the effectiveness and efficiency of his school program. The budgeting process requires that evidence of planning accompany requests for new funds; it requires similar evidence of planning where old funds are reallocated to achieve similar efficiency and effectiveness.

All planning is recorded on a "program change objective" sheet on which are recorded the reasons for the program change, the major elements involved in the change, and additional resources required, if any. With each program change proposal, the goals of the program must be included along with the criteria (or tests) to be used in measuring the impact of the program change on these goals. This will be done to insure that goals of programs are clearly defined and that acceptable methods of determining the effect of the program change on goal achievement have been devised.

Also required is a listing of the tasks completed and yet to be completed in effecting the program change, and of persons responsible. This list is to be used by area and district evaluation personnel who monitor the progress of program changes within the system.

At present, principals, in preparing their budgets and in considering possibilities for program change, are encouraged to establish appropriate forms of participation by teachers and other staff members.

In October, each principal and other budget managers will receive a preliminary estimate of the budget for his school or department. In years where a levy is being sought, two estimates will be provided: 1) a minimum estimate based on revenues it is certain the District will receive, and 2) an estimate based on increased resources the levy is expected to provide.

The estimates given to each school and department will be based on formulas agreed on by the Board, administration, and principals. The estimates will include adjustments for anticapted salary and other cost increases which might mean that although a budget contains more dollars than the year before, it may purchase fewer goods and services.

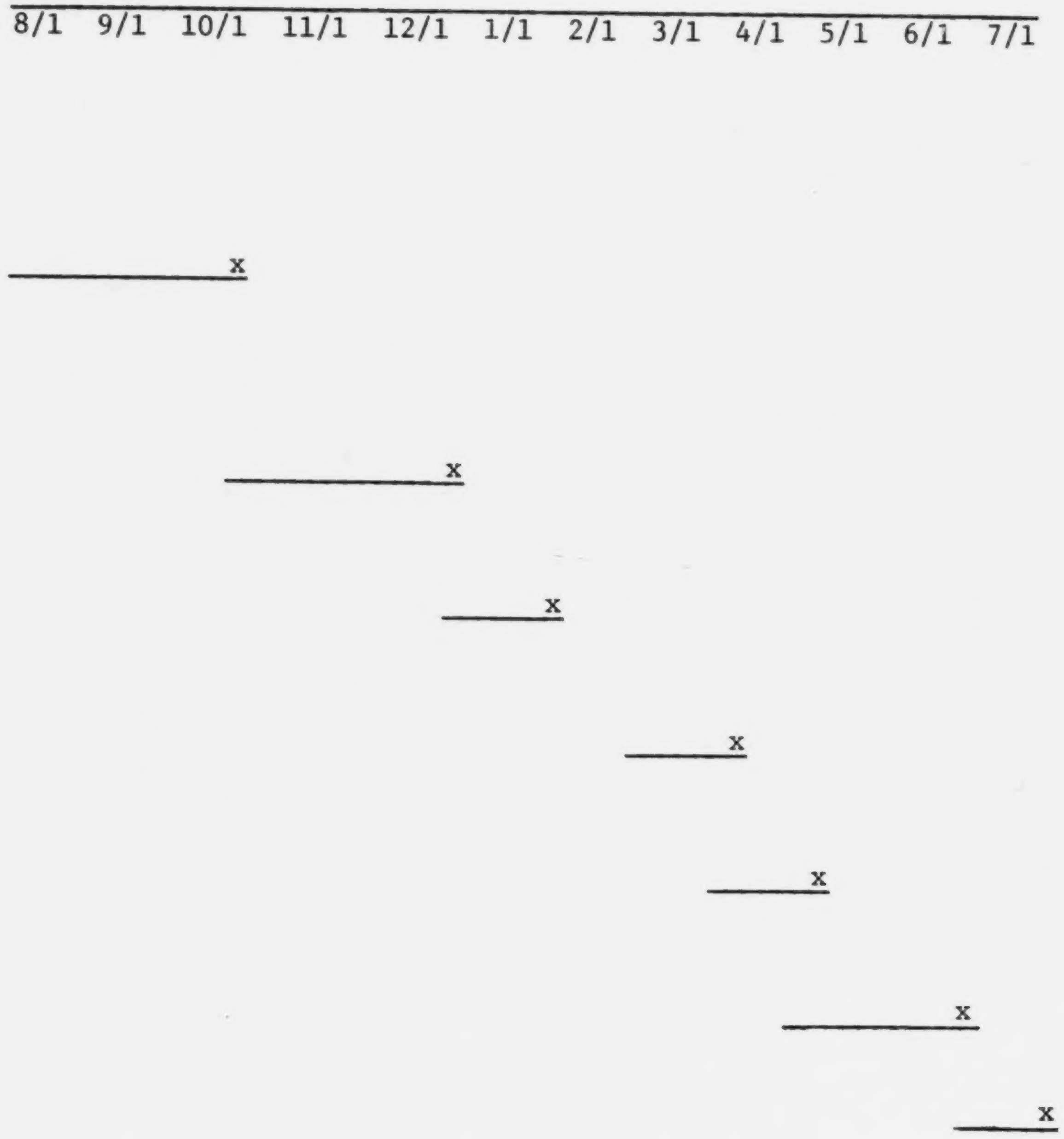
The accounting procedures for the PPBS plan are presently being delineated and clarified by Price-Waterhouse.

The proposed PPBS budget cycle is herein described on the following page:

PPBS BUDGET CYCLE

Tasks

1. Provide each responsibility center with preliminary budget allocation estimates for coming year using preliminary revenue estimates and an equity distribution formula
2. Formulate objectives for new programs or changes in existing programs. Establish priorities and budget those program changes that fall within resource allocation limits (all programs)
3. Alter support program budgets to reflect changes in services required of them by other operating units
4. Provide each responsibility center with final estimates of budget allocations based on latest revenue information
5. Revise budgets as necessary by reviewing program changes in light of new resource allocations
6. Compile proposed program and line-item budgets as required by the system and by law
7. Review budget (top management); revise if needed



Operation-Data Collection-Evaluation:

While this entire report is definitely subject to revision since the material for the report has come almost exclusively from a discussion circular, the following forms and/or format represents the various concerns of the PPBS plan, including the temporary evaluation of program change questionnaire.

PROGRAM DATA SHEET

Budget Year 197_ to 197_

Responsibility Center:____________________________________

Program Title:________________ Number:____________________

Activity Title:________________ Number (if applicable):__________

Prepared by:________________ Date Prepared:________________

Activity: (check one)

☐ New

☐ Continuing

Program Change Proposal Attached?

☐ Yes

☐ No

Activity Description

Form: _-1_

STUDENT ENROLLMENT DATA

Budget Year: 197_ to 197_

Program:____________________

Activity:____________________

	Current Year (CY)	Budget Year (BY)
1. Student Participation		
A. Estimated total student enrollment:	________	________
B. Estimated number of sections:	________	________
C. Estimated average class size (A ÷ B):	________	________
2. Course Duration		
Number of weeks:	________	________
3. Estimated full-time enrollment		
$\frac{\text{Course duration in weeks}}{36}$ X estimated total student enrollment	________	________

Form: __-2__

Budget Year 197_ to 197_

School Program Change Proposal Number:

Responsibility Center Number:______ Program:______

Prepared by:______ Activity:______

Type of Program:

☐ Educational

☐ School Support

☐ School Management

Primary Focus on:

☐ Effectiveness

☐ Efficiency

Statement of Proposal: (Major details of change; why change is needed; why it is believed the change will increase the effectiveness of the program; time schedule)

Resources Required:

Object of Expenditure	Code	Staff Count FTE	Dollar Cost

Form: -4a

Budget Year 197_ to 197_

System Program Change Proposal Number:

Responsibility Center:_____________ Program:____________________

Prepared by:_____________________ Activity:____________________

Type of Program: Primary Focus On:

Management, System ☐ Effectiveness ☐

Support, System ☐ Efficiency ☐

Statement of Proposal: (Major details of change; why change is needed; why it is believed the change will increase the effectiveness of the program; time schedule)

Resources Required:

Object of Expenditure	Code	Staff Count FTE	Dollar Cost

Form: (alternate 4a for use at system level)

Forms -4a to -4e

Columnar Headings

Column A is the approved budget for the current year

Column B is the current year budget carried forward to reflect changes in cost of living and number of students

Column C is to be used when the program as it exists is below standard due to overcrowding, lack of supplies and equipment, or space inadequacy. Changes here are not program changes but corrections in resource deficiencies that will permit existing programs to function successfully.

Column D is to be used when new course goals require changes in personnel, methodology, equipment or space resources, or when changes are made to improve effectiveness in meeting existing goals, and such changes involve adjustments in personnel, equipment or space resources. All costs in this column must be described and justified on Program Change Objective forms.

Column E is total of columns B, C, and D.

Number: ____________

EVALUATION OF PROGRAM CHANGE

1. If change is to improve attainment of existing goals:

   A. Describe tests or criteria to be used in evaluating effects of change:

   B. Describe methodology to be used in evaluation:

   C. Indicate if resources for this evaluation have been included in one or more of the following budgets:

      1) Budget for this activity (X) ____
      2) Other budgets:

Responsibility Center Code	Program Code

2. If change is to attain new goals:

   A. Specify new goals to be attained

   B. Describe indicators or measures to be used in evaluating these new goals:

   C. Describe methodology to be used in evaluation:

   D. Indicate if resources for this evaluation have been included in one or more of the following budgets:

      1) Budget for this activity (X) ____
      2) Other budgets:

Responsibility Center Code	Program Code

Form: -4c

Possible Intern Involvement:

While the total needs of such a district-wide program have undoubtedly not yet been forecast, Dr. Doherty indicated that many resources would be devoted to the development and implementation of the PPBS plan. Work is presently progressing on budgetary procedures and on other developmental phases of the program. Doherty indicated that two (2) interns could possibly be used in the evaluation component of the program.

There would be the availability of local district assistance to work with these research interns if such interns could be provided.

DETAILED SITE/PROJECT DESCRIPTION

Example No. 5

Project:	Portland Career Opportunities Program; Section B-2, EPDA
Project Site:	Portland Public School District, No. 1, Portland, Oregon
Project Coordinator:	Mrs. Virgie Harris, Portland Public Schools

Origin:

School District No. 1, the Portland Public Schools, was recently advised by the U. S. Office of Education of the acceptance for funding of its Career Opportunities Program proposal under Part D of the Education Professions Development Act. This program, when in full operation, provides for the training of teacher aides with the ultimate goal of their achieving a bachelor's degree and certification as teachers. A career lattice will afford aides the opportunity to advance in position and salary based upon increased education and demonstrated competency. "Spin off" levels will allow aides to assume positions short of certification and the bachelor's degree, yet realistic in terms of proficiency and training.

The Career Opportunities Program will operate in the local schools situated within the boundaries of the Portland Model Cities Neighborhood. The area embraced by the Model Neighborhood includes the attendance areas of eight of the nine elementary schools and one high school included in the School District's Model School Program. The area also includes parts of the attendance area of one other elementary school and three other high schools.

The Portland Career Opportunities Program is supported by a grant under the provisions of the Education Professions Development Act, Section B-2. In addition, funds for the full development of this program come from an original Career Opportunities Program proposal, from local fiscal resources, and from a grant under Title I of the ESEA.

The requested budget asks for the following funds:

	B-2 Funds Requested	Other	Total
Administration:			
Director (6 weeks)	$	$1,696	$ 1,696
Secretarial (6 weeks)		690	690
Fixed Charges @ 11%		220	220
Instruction:			
Communications Skills Instructor, 24 Instructors, ½ days @ $55	1,320		1,320
Consultants 10 Consultants, ½ days @ $50	500		500
Supplies	200		200
Trainee Support:			
30 Participants, 6 weeks @ $75	13,500		13,500
Fixed Charges @ 11%	1,485		1,485
TOTAL	$17,005	$2,606	$19,611

The staff assigned to this project include:

1. Director: The Career Opportunities Program director is to be selected according to criteria established in the COP proposal submitted to the U. S. Office of Education. This selection will take place during the month of March. His duties will include the overall administration of the summer workshop session and its integration into the total COP operation.

2. Communication Skills Instructor: The person to be employed to instruct communications skills must have a background of experience in conducting classes in oral and written communication to adults. He must be able to relate to persons from disadvantaged and minority backgrounds.

3. Consultants: From time to time specialists will be called in to assist with instruction in specialized areas. The mathematics, language, child services, P. E., science and similar areas will be so treated. Persons selected to assist in these areas must have demonstrated competence in their specialty as well as able to instruct COP participants.

Purpose:

The Portland Career Opportunities Program affords a new means for the recruitment and training of persons who heretofore have found the doors of educational and professional development closed. It will afford opportunities for advancement based upon realistic criteria and provide career options based upon interest and aptitude. COP participants will make a meaningful contribution to the education of low-income students. At the same time, they will further their own personal growth. By linking COP with other offerings and programs, more efficient and economical operation is anticipated.

Specific Objectives

The specific objectives listed below should be attained by aides, teachers, and students.

A. The Career Opportunities Program will:

  - initiate for Model Cities Neighborhood residents a teacher education program.
  - maintain effective liaison between the participating colleges, the school district, and the community.

B. After the first summer orientation session, aide participants will manifest:

  - positive self-images and confidence regarding their involvement in teaching-learning activities
  - improved communications skills
  - understanding of the roles and responsibilities of the teaching team--teachers/aides/administrators.

As a result of participation in summer orientation sessions, aide participants should be able to:

1. Demonstrate knowledge of the structure and operation of the school district.
2. Demonstrate knowledge of the roles of teachers, administrators, and aides.
3. Demonstrate the ability to work with other school personnel in a positive manner.
4. Demonstrate knowledge of child development and behavior.
5. Develop materials, evaluate student performance, and perform routine instructional tasks in language arts (including reading) and mathematics.

6. Demonstrate skill in performing routine clerical tasks and operating audio-visual equipment.

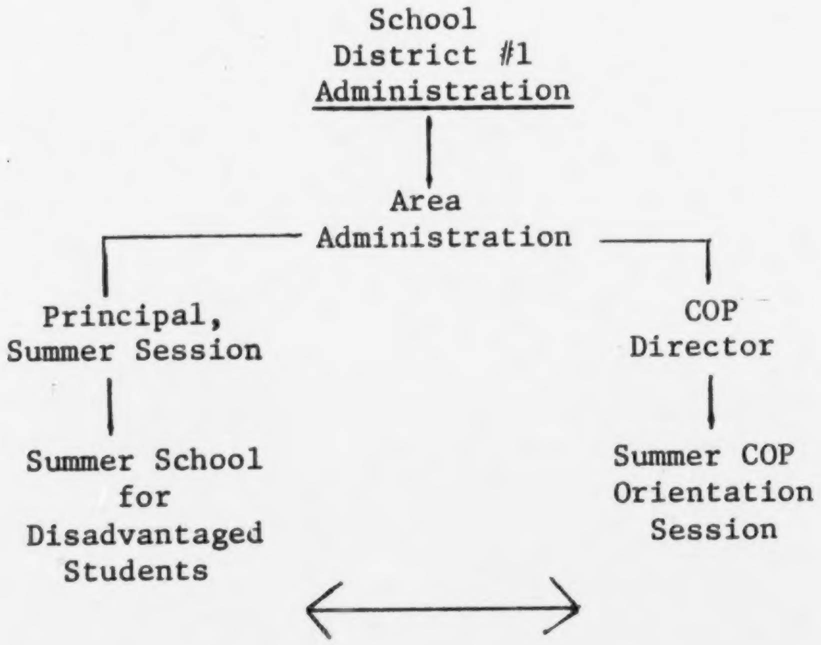
This project is accountable to the U. S. Office of Education under the provisions of Section B-2, Education Professions Development Act and under Title I of ESEA.

While the project seemingly shows only a philosophical commitment to the training of research personnel, the Career Opportunities Program had been supported in its research efforts by the research component of the Model Cities Program. Since this research support was removed, it is now clear what research support can be found for the project. Two research personnel in training could definitely be utilized. No training objectives seem mentioned and this commitment to training has, as yet, no definitive training objectives.

Context:

Because of time constraints largely, the actual project coordinator could not be reached to discuss the internal operations phase of this project.

The schematic administrative structure for the Careers Opportunities Program is represented in the following structural display:


School District #1 Administration
Area Administration
Principal, Summer Session
COP Director
Summer School for Disadvantaged Students
Summer COP Orientation Session

DETAILED SITE/PROJECT DESCRIPTION

Example No. 6

Project:	Boise Environmental Education Project, funded under a Ford Foundation grant
Project Site:	Portland Public School District No. 1, Portland, Oregon
Project Coordinator:	Mrs. Bobbie Nunn, Portland Public Schools.

Purpose and Objectives:

Educators, parents, and members of the community have expressed alarm at the deterioration of the inner city. Needed are programs to generate concern and develop skills in improving the environment. This proposal specifies an approach to this problem. To remain viable, education must move outside the confines of the classroom and incorporate the resources of the community in the learning processes. Specific learning activities based upon the community as a classroom will result in the attainment of those skills and attitudes requisite to a positive relationship to the environment. Rather than learn about the environment vicariously in the abstract setting of the classroom, it is proposed that students become active participants in activities in the community, thus developing the attitudes and skills necessary for environmental improvement in the actual setting in which they will be used.

Specifically, the activities of this project will, during the first year, result in the following outcomes:

1. Twenty teachers and ten parents will participate in workshop sessions to develop curriculum plans and review the total program. Specific learning activities and schedules for grades K-8 will result from these sessions.

2. All upper grade students at Boise School (approximately 125) and many others in grades K-6 will participate in the rehabilitation of a sub-standard house in the local community. As a result, they will evidence:

    a. specific skills in planning, construction, and related areas evidenced by the quality of their work.

    b. positive attitudes toward the improvement of the community as measured by their voluntary participation in rehabilitation projects as well as their responses on measurement instruments designed for this specific purpose.

3. All students in grades K-8 at Boise School and approximately 50 students from Jefferson High School will spend a minimum of six school days in learning experiences outside the school.

4. Teachers will evidence changes in teaching strategies, including:

    a. increased ability to specify learning outcomes in behavioral terms.

    b. the incorporation of community-based activities in their teaching.

    c. increased utilization of the resources of the community including agencies, businesses, and resource persons.

Activities:

Four interrelated sets of activities are proposed to meet the objectives of the project.

1. Workshops: In order that teachers acquire the skills and attitudes requisite to their expanding learning activities into the community, workshops will be held during the summers of 1970 and 1971. Teachers will participate in these workshops under the direction of the project director and the Boise principal. Boise parents will be invited to participate for a portion of each session. Team building, curriculum development, and parental involvement will be stressed.

2. Renovation of Substandard House: As a focal point for student activities related to environmental improvement, a substandard home close to Boise School will be purchased and renovated. Seventh and eighth grade students from Boise will work with high school students at Jefferson. Shop instructors, classroom teachers, and persons from the community will be enlisted to supervise and instruct.

3. Community School: The focus of the project is upon the expansion of learning activities beyond the confines of the classroom. Small vans will be provided to enable teachers and other staff members to transport students to sites away from the school for learning activities. Businesses, agencies, and public lands will serve as the learning environment. Students will participate in activities designed to develop skills and attitudes necessary for their having a positive impact upon their environment. Parents and members of the community will be enlisted to come to the school to serve as resource persons, thus bringing the community to the school.

4. Evaluation: To further refine program objectives into behavioral outcomes and to develop data gathering and analysis procedures, it is planned that resource persons from within and outside the district work as a task force with teachers and project personnel. As this is a developmental project, emphasis will be placed upon data gathering for program monitoring and improvement.

Personnel and Budget:

The present staff for the Boise Environmental Education Project includes:

a) a project director, 205 day work year (June 1, 1970 thru May 31, 1972)

b) a secretary, 1.00 FTE (June 1, 1970 thru May 31, 1972)

c) an Evaluation Task Force composed of personnel from both within and outside the Portland Public School District. The project has a budget of $3,500 for each of the projected two years of the project's duration for the payment of such an evaluation task force.

The total budget estimates for the two-year project total $134,962 with a first-year budget allowance of $64,338 and a second-year cost estimate of $70,624.

DETAILED SITE/PROJECT DESCRIPTION

Example No. 7

Project:	GROW (Growth-Research-Organization-Work), initiated under Title III, ESEA
Project Site:	Portland Public School District No. 1, Portland, Oregon
Project Director:	Mr. William N. Warner, Principal, Columbia School

Origin, Background, Objectives:

Columbia Elementary School in Portland, Oregon is located on the banks of the Columbia River at 716 N. E. Marine Drive. In August of 1966, the Title III Project Grow was funded for the first time and ever since, Columbia has been known as the GROW School. In the original proposal, six schools and 3,052 youngsters were included in the planning. Today, the number has grown to 23 schools and 12,240 youngsters.

Enthusiasm by staff and students has led to a high degree of success for the program. This is reflected by the new found skills, attitudes and study habits of former non-functioning students. Acceptance of the program by local board and administration assures continued funding of the project at the local level making it an integral, permanent part of the Portland educational program.

The objectives of the program are:

1. To increase confidence of pupils in their own abilities to successfully complete worthwhile tasks.

2. To increase competence of pupils in use of communication and computational skills.

3. To help students acquire knowledge of vocational opportunities commensurate with abilities and nature to make individual vocational success possible.

4. To increase children's background of information and understanding of the physical, social and economic world.

5. To accept non-functioning youngsters from 23 other schools for permanent placement at Columbia School.

6. To prescribe and to develop a program that meets the needs of these particular youngsters, and to endeavor to develop competency in these people so they may function once again in the regular classroom.

The GROW program uses a 28 acre site, a large industrial arts shop, home economics department, gas engine garage, and a 1,500 square foot greenhouse, plus a State of Oregon award winning library as a means of teaching concepts that are taught in the regular classroom.

1. The GROW school is unique in that it accepts non-functioning youngsters from other schools for permanent placement in the GROW Project.

2. The program is unique in that it brings an entire classroom of students and the teacher to Columbia for a six-week period as an in-service training to change behavioral attitudes and opinions of teachers.

3. The GROW school is unique in that an urban school system uses agriculture and nursery work as a means of teaching the same concepts taught in the regular classroom.

It is the feeling of the staff at Columbia School that classroom walls should be extended in the library and out into the world, that field trips should acquaint the youngsters with industry, natural resources, governmental services, historic shrines, and should acquaint them with the world in which they live.

Great emphasis has been placed by the staff on changing the image that students have of teachers. This has been accomplished by teachers becoming involved in night activities with students such as school dances, transporting youngsters to community activities, boat shows, ceramic shows, Far-West basketball games, state basketball games, hockey, swimming, fishing, etc. Tickets to these functions have been secured by the community agent and have provided students and teachers a new type of community activity.

Long range planning with the continuation of the project shows a development of 28 acres of the GROW site into an outdoor living science complex and arboretum, that will one day be available for field trips to all students of the greater Portland metropolitan area.

The Oregon Nurserymen's Association has, under consideration, a plan to help the students of Columbia School develop 20 acres of the farm site into an arboretum. The nurserymen will supply consultant service, equipment, 8,000 to 12,000 plants, shrubs and trees.

The GROW program is so organized and staffed that it is possible to meet specific needs of individual students in class organization and work projects by being able to place youngsters in small groups for the development of specific skills. It is possible to schedule youngsters with teachers in a one-to-one relationship.

Prescriptions, or prescribed courses of studies, are written for each student, with a goal in mind, of placing youngsters into a program in which the degree of failure is almost non-existent. It is the feeling of the staff that youngsters received at Columbia for placement in the program, for too long a period of time, have known only defeat, failure and frustration. It is, therefore, felt that one of the first steps in helping non-functioning youngsters is to prescribe a program with a built-in success factor.

It is the belief of the staff that involvement by students is the key to awakening interest and to provide motivation for rekindling interest in the learning process.

Evaluation:

1. The project will continue and be improved and enlarged. Continuous planning and growth are anticipated. Research and evaluation have proven the worthwhileness of the GROW program, therefore the Portland Public Schools incorporated it into the regular school budget.

GROW Project Budget
00239

Salaries	
1 Director	12,240
3 Teachers	26,670
1 Aide	2,900
Other	
Supplies	1,550
Gas, Oil	750
Equipment Rental	3,890
Total Appropriation Account 00239	48,000
Maintenance of Equipment Acct. 00710	750
Transportation Acct. 00500	800
Total Estimated Expense for Department	49,550

2. The high degree of success and acceptance of the program is one of the major reasons for its continuation. Early expectations have been surpassed. Goals and objectives have been attained and the degrees of success have been outstanding. Community involvement and acceptance of the GROW project have resulted in gifts, contributions and services.

APPENDIX I

EVENTS, TASKS AND TIMELINES

The following five charts depict the projected time line for accomplishing each of the development and continuing tasks. For greater clarity, a definition of each task is provided prior to the appearance of the timeline chart.

Task Descriptions To Accompany Timeline Chart
Event I - Trainee Recruitment

Development Task 1: "Brochure"

A summary description of the training program will be written. Additional information such as goals of the program, benefits to be realized by trainees, those eligible to apply, deadline dates for application and members of the consortium will be provided. An application format will be developed containing specific information about the candidate for screening purposes. The program staff in consultation with a printing agency will develop and produce the brochure.

Development Task 2: "Preliminary Interview Form"

An interview form will be developed by program staff for purposes of gathering additional data regarding each applicant. The information will consist of:

1. Present experience
2. Professional aspirations
3. Anticipated future job
4. Alternative possible jobs

Interviewers will receive training in the use of the interview form, probing techniques, data checking and recording.

Development Task 3: "Slide Tape Presentation"

A profile of tasks performed by individuals holding positions in development and evaluation will be designed. Extensive use will be made of the materials produced by the RDD&E study conducted by TR. A format for presentation of the profiles will be designed with assistance from an audiovisual consultant. A slide tape will be produced for each area (development and evaluation) by an audiovisual production agency.

Continuing Task 1: "Distribution of Brochure (And Personal Contact)"

A list of agencies will be generated (by the program staff with assistance from the Governing Council) that have close contact with individuals possessing those qualifications essential for consideration as a trainee. Brochures will be mailed to key staff members for distribution within the agency. Personal contact will be made with a number of key staff members to discuss program and candidate referrals.

Continuing Task 2: "Initial Screening"

Each application will be classified according to area of interest (development or evaluation) and ranked within classification according to qualifications as indicated by information contained in the application and personal references. Some initial "weeding out" of obviously misplaced or inappropriate candidates will take place.

Continuing Task 3: "Initial Conference (With Planning Time)"

The initial conference program will be designed by the program staff following the format:

Introductions
Program design and procedures
Small group discussions
Luncheon
Individual interviews

A comprehensive description of the training model will be prepared for oral presentation. Procedures for presenting the slide-tape review and supplementary materials for discussion will be developed. Staff members will be assigned to specific responsibilities within the program. Facilities will be scheduled for small group discussions and individual interviews.

Continuing Task 4: "Followup Dossier Completion on Trainee"

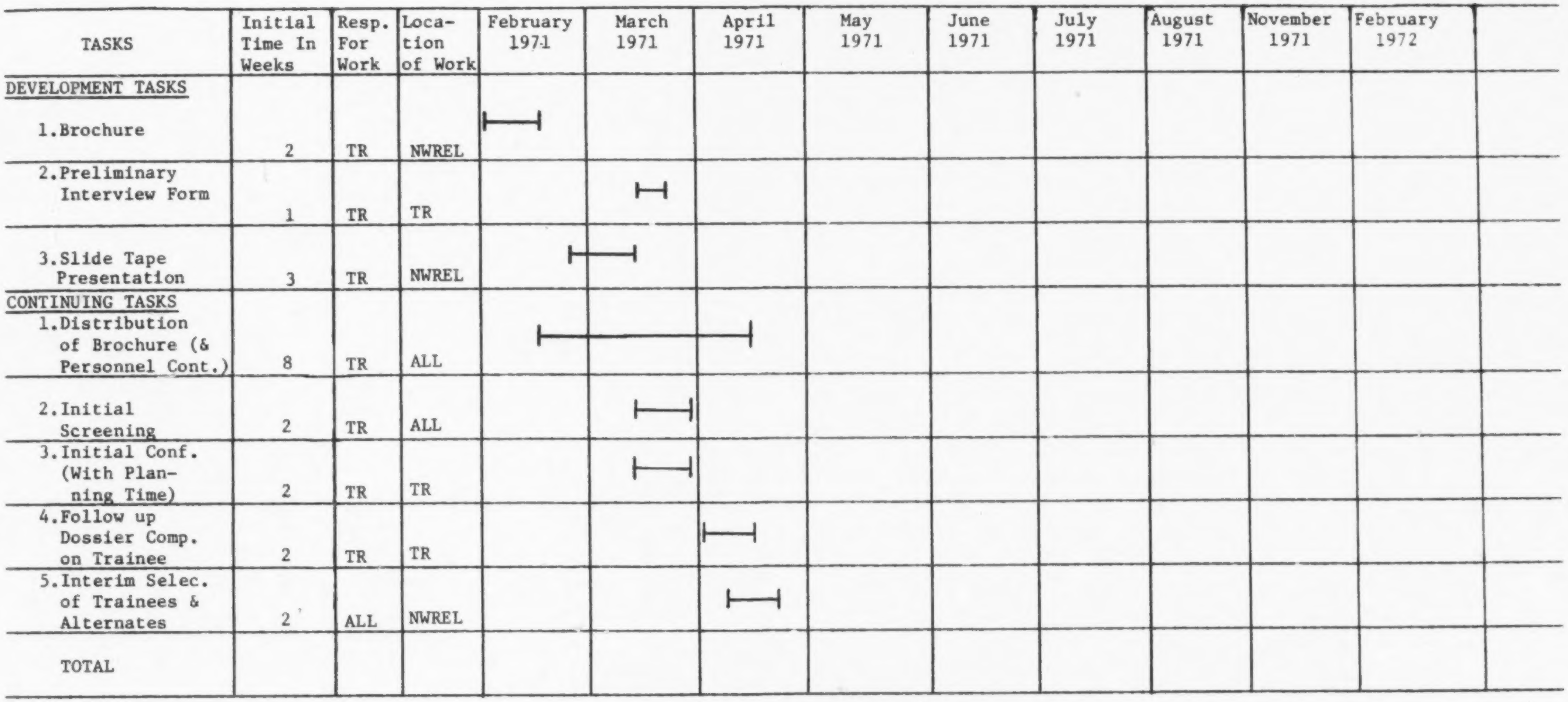
A followup of all references of each candidate will be made through personal contact. A folder containing the candidate's application, transcript of training, rough profile of experiences and aspirations, reference narratives and the interviewer's assessment of candidate's potential will be compiled.

Continuing Task 5: "Interim Selecting of Trainees and Alternates"

The program staff will complete a summary assessment of each candidate and present it to the total group. Each candidate will be classified according to development or evaluation and ranked as to training potential. Twenty-five candidates will be selected as interim trainees and four as alternates. All applicants will be notified of their status.

TIMELINE

EVENT I: TRAINEE RECRUITMENT



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Brochure	2	TR	NWREL	├──┤									
2.Preliminary Interview Form	1	TR	TR		├┤								
3.Slide Tape Presentation	3	TR	NWREL	├	──┤								
CONTINUING TASKS													
1.Distribution of Brochure (& Personnel Cont.)	8	TR	ALL	├──	────	──┤							
2.Initial Screening	2	TR	ALL		├──┤								
3.Initial Conf. (With Planning Time)	2	TR	TR		├──┤								
4.Follow up Dossier Comp. on Trainee	2	TR	TR			├──┤							
5.Interim Selec. of Trainees & Alternates	2	ALL	NWREL			├──┤							
TOTAL													

Consortium Participants

PROGRAM: Consortium Program Funds
NWREL: Northwest Regional Educational Laboratory
OSDE: Oregon State Department of Education
OSU: Oregon State University

PPS: Portland Public Schools
TR: Teaching Research
UofO: University of Oregon
UofW: University of Washington
ALL: All Consortium Members

Task Descriptions to Accompany Timeline Charts
Event II - The Induction Process

Development Task 1: "Competency Profile Instrument"

Once the tasks within each competency area are specified and arranged in order of difficulty, the display and recording formats can best be developed through the process of trying out the procedure with a variety of test subjects. Probably at least ten trainee-subjects should be used, with time in between for revisions of the procedures, form, and display formats.

Before the initial trial interviews, an example should be generated for each task, and written up in a form for presentation. By carefully recording test-subject reactions to these documents, and their suggestions for change, these can be successively altered and improved.

The examples used for explanatory purposes should form the basis for any simulated assessment procedures. Once written up and improved, the entire set of examples should be able to be turned over to a simulation/assessment team who could generate the first set of assessment simulations. These, too, should be tried out on a group of subjects who are known to possess the competency being assessed.

Development Task 2: "Field Survey to Derive Model Competency Profiles"

Once the competency profile generation procedures are tested, a systematic survey of all types of educational institutions must be made to determine the kinds of educational development and evaluation personnel they most need, and to translate these job openings into the competency profile format, indicating the minimum profiles which they would hire for these jobs. This will be done by interviewing the directors of these various institutions, and asking them to indicate employees who come close to the kind of individual they want. Then these individuals will be rated on the competency profile device. This survey procedure should be repeated quarterly to keep up to date the job openings which need filling, and every effort should be made to expand the institutions which are so surveyed.

In addition, a selection of employees at various salary levels in each institution should be rated on the competency profile and their profiles provided as examples.

Development Task 3: "Profile Validation"

The criteria for profile adequacy for the training program should be based on this information generated from the field, and continuously updated. This involves determining some mathematical or other method for combining the many profiles derived from the field and determining some minimal levels in certain things, along with some overall competency levels on which the training program should insist.

Once the simulation assessment devices are developed and adequately tested for operational purposes, an attempt should be made to determine the degree of difference in the competency profiles of persons who can perform the simulation test as opposed to those who cannot. This implies testing the assessment devices on a large sample of subjects. This cannot be done for all of the devices, but if done for a few, it is hoped that useful rules-of-thumb will be developed. The appropriateness of any profile adjustments based on these devices will become more apparent as the trainees are tracked through the training program.

Development Task 4: "Slide-Tape Refinement"

The initial work in the development of the slide-tape presentation which explains the overall training program will be finished for the initial trainee meeting in February. For the March meeting this slide-tape could be improved if any improvements seemed necessary. Then, additional slides would have to be developed which dealt with the competency profile and its role in the training program in such a way that the trainee understood its importance. Once the staff determined the content of this portion of the slide-tape, the development could be turned over to a slide-tape development group.

Development Task 5: "Instructional Materials for Training Staff"

Materials will be developed to assist in the training of the training staff in such areas as preparing competency profiles, conducting the induction interviews and functioning in an operating setting.

Development Task 6: "Instructional Materials for Trainees"

Once the tasks in the competency profile are determined and the nature of the products which would satisfy the competency specified, a team should be set to work identifying all the existing instructional materials relevant to the successful production of each product. These materials would include text books, articles and all other instructional materials.

Copies of all available materials should be purchased in sufficient numbers of sets for each of the training sites, and should be arranged and catalogued for ready access and use in a field setting.

Determination should be made of all tasks for which no instructional materials, or no good instructional materials exist, and for these, a group of developers set to work to develop some appropriate materials.

Continuing Task 1: "Selection and Training of Training Staff"

The training staff should be made up of persons with experience teaching in a university setting and members of the projects which will be the training contexts once the program becomes operational, particularly the directors of such projects.

The directors of each of the consortium institutions will be asked to nominate possible training staff personnel from their institutions. A file on these nominees will be developed, including a competency profile rating.

The Governing Council of the Consortium will make the selection of the training staff, taking into account both the strength of the project with which any potential staff member is associated, and the strength of the nominee himself. It is expected that the project with which a nominee is associated will become a training project. The training staff must have the confidence of all members of the consortium.

Once the training staff is selected, substantial training will have to be conducted to familiarize the staff with the training program, with the competency profiles, with the responsibilities of a training staff member in an operating setting, and to perform the Induction Interview Process.

Continuing Task 2: "Induction Interview Process"

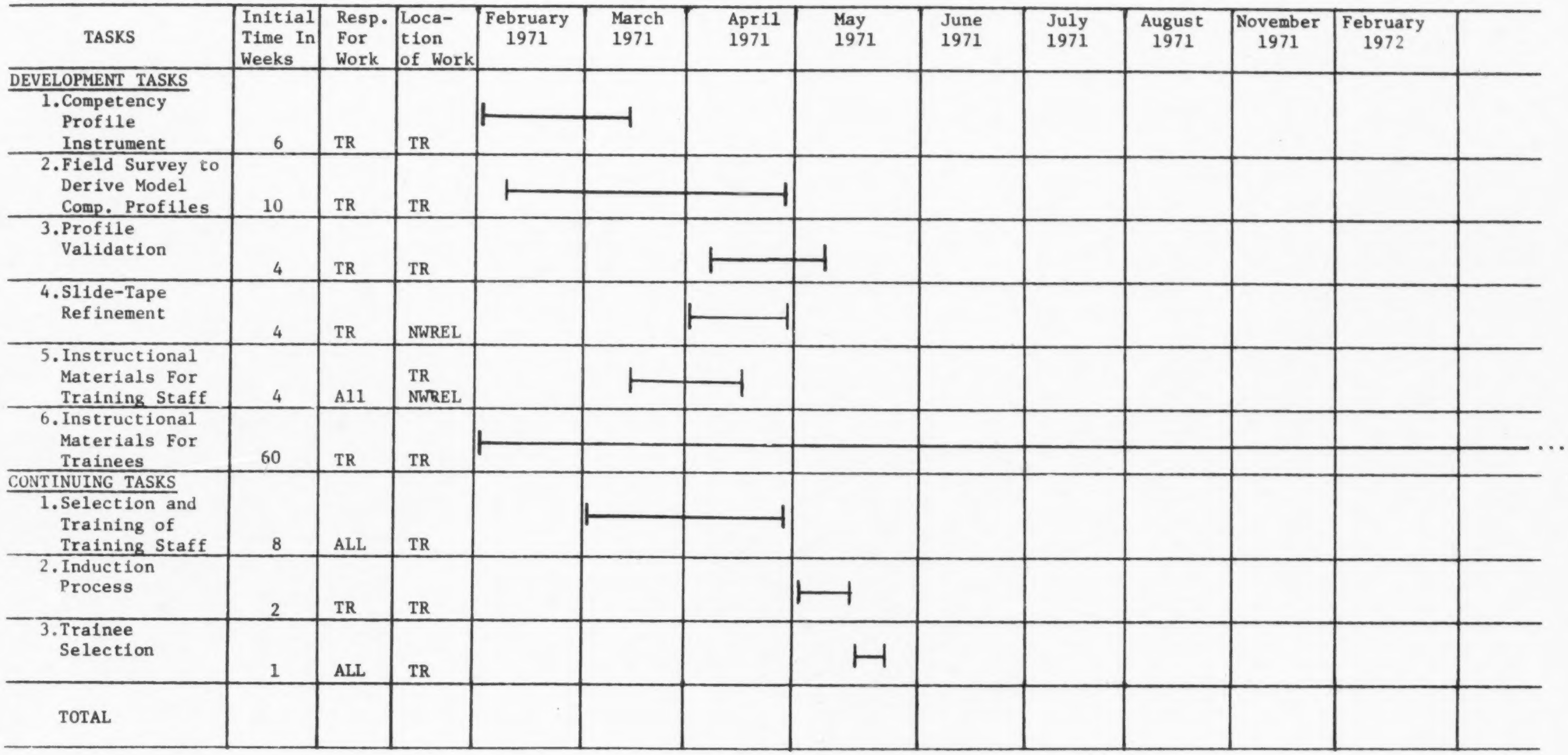
The twenty-five applicants will meet for one week with the training staff. Activities will include orientation, completion of a competency profile with task analysis, scoring of the profile, completion of a proposed profile, verification of competency ratings and final determination of the competency profile including ordering of competency tasks within the profile.

Continuing Task 3: "Trainee Selection"

Final selection of fifteen trainees and two alternates will be made and announced.

TIMELINE
EVENT II: THE INDUCTION PROCESS

(Screening of 25 Applicants to 15 Initial Trainees)



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1. Competency Profile Instrument	6	TR	TR										
2. Field Survey to Derive Model Comp. Profiles	10	TR	TR										
3. Profile Validation	4	TR	TR										
4. Slide-Tape Refinement	4	TR	NWREL										
5. Instructional Materials For Training Staff	4	All	TR NWREL										
6. Instructional Materials For Trainees	60	TR	TR										...
CONTINUING TASKS													
1. Selection and Training of Training Staff	8	ALL	TR										
2. Induction Process	2	TR	TR										
3. Trainee Selection	1	ALL	TR										
TOTAL													

Task Descriptions to Accompany Timeline Charts
Event III - The Trial Projects

Development Task 1: "Field Problems Seminar Development"

Through discussions with the Governing Council and others experienced in field-centered training programs, as complete a list as possible of probable problems and issues must be generated. For each of these, instructional procedures must be sought out or developed to examine the issue or problem and to help trainees and staff decide how to deal with the issue when it comes up. If there is a solution preferred by the Governing Council, this will be the focus of the training program. If, as seems likely, many of the problems will have no solution except an agreed way to handle the problem if it comes up, the need will be to train staff and trainees in the procedures.

It is anticipated that many of these procedures will best be learned by the techniques of role playing, improvision and group process. Once a particular problem is confronted, every effort will be made to run the trial project in the future according to the best solution generated by the seminar. In this way both the staff and the trainees will become socialized into a set of procedures which make learning possible through ongoing project experiences.

It seems that one critical need will be to develop procedures for confronting new issues if and when they arise. The staff will establish before the trial project begins, a procedure for allowing the confrontation of new issues.

Development Task 2: "Conference and Supervision Training Materials"

Prior to the beginning of the trial projects, the staff must be trained in the techniques of supervision and conference-counseling. If the trainee is to learn, this will involve some determination ahead of time of what is legitimate in the way of help and supervision, and what is not. Furthermore, the staff will have to agree to meet regularly to discuss various supervision problems, and to put together other support procedures for handling trainees with severe difficulties.

It is anticipated that as much as a week of training will be necessary, based largely on the role playing of various possible problems that a trainee might bring to his supervisor. These role-playing situations will be videotaped and discussed; guidelines will be developed for the supervision sessions.

Continuing Task 1: "Selection (or Creation), Staffing and Planning of the Trial Project"

Once the initial negotiated profile on each trainee has been derived, and the trainee has selected the three areas in order of preference where he would like to start, the need will be to either select or create some trial projects which maximize the fit between the needs of the trainees and the needs of the projects. These trial projects will serve to test out the procedures to be used in actual field projects,

to teach the training staff how to operate a training program within a project context, and to train the trainees how to learn from such settings. If fifteen trainees are selected, it is estimated three trial projects would be sufficient, probably located in three different institutions in the consortium.

Nominations of possible trial projects will be received from the consortium institutions. Additional projects which each of the institutions would like to see done will also be derived. Once the needs of each of the projects have been assessed, these will be matched with the training needs of the trainees.

If the projects are satisfactory, they then will be staffed by the designated staff of the training program, making whatever provisions are necessary to release such designated staff from their institutions to take part in the trial project.

As soon as the trial projects are selected and staffed, the plans for the project and timelines will have to be laid out so they include the requisite experiences for the trainees, and so the requirements of the project can be satisfied within the time limits of the projects. This will be done by the project staff.

Continuing Task 2: "Site Arrangements"

Once the trial projects have been selected or created, the necessary support, space and equipment will have to be placed at that site. A list of needs will be generated by the project staff based on the needs of the project, of the trainee and of the development of procedures for the training program. The project directors of the trial projects will negotiate with each institutional site for each of the list of needs, with virtually the entire cost being borne by the training program. The arrangements between the trial project and the site will be written into a legal subcontract which will serve as a prototype for future agreements with all training projects.

Continuing Task 3: "Scheduled Seminars, Conferences and Staff Meetings"

With the demands of testing the procedures of the training program in mind, with the needs of the trainees and the needs of the projects, the staff must determine a schedule of meetings during the life of the trial project which permit all to happen. On the basis of the trial project's experience, the relative incidence of each kind of meeting could be altered as necessary, and a new schedule developed for use in the actual field projects.

Continuing Task 4: "Content Seminar Planning"

The intent of the Content Seminar is to be responsive to the needs of the trainees in successfully completing their tasks, while also going beyond the particular task each trainee has and generalizing the

particular experience. Therefore, the most important work to be accomplished will be the determination of procedures to assure optimal content relevance for the trainee and plans for organizing, presenting and monitoring their effectiveness.

Probable content areas must be determined ahead of time, and preliminary work done in planning instruction related to these areas. This must be done by the project staff, once the tasks of completing the project are specified. Then, individuals must be identified to lead a seminar session on these topics. They must be put on call for whenever the topic may arise. It is anticipated that many of the topics will be within the competence of the training staff.

Once the content area for any seminar session is established, the evaluation procedures to assess that seminar must be determined and implemented.

Continuing Task 5: "Content Seminar Operation"

One content seminar per week will be conducted for trainees at trial project sites. Training staff and consultants will participate. Seminar content will be responsive to trainee needs in task performance.

Continuing Task 6: "Field Problems Seminar Operation"

One field problems seminar per week will be conducted for trainees at trial project sites. Training staff and consultants will participate. Seminar content will depend heavily upon incidents reflecting a range of possible task performance and interpersonal behaviors.

Continuing Task 7: "Conference and Supervision Training and Operation"

The ongoing supervisory program is designed to respond to trainee needs primarily through the function of training staff and consultants utilizing videotaped role-playing episodes.

Continuing Task 8: "Assessing of Competence in Context"

Criteria for the assessment of each trainee product will have been specified. Examples of work satisfying those criteria, and work not satisfying those criteria, will be available. The training staff will need to practice assessing trainee work carefully according to the criteria established, and in the manner suggested by the competency profiles. At the end of the project the effectiveness of these procedures will need to be assessed.

Continuing Task 9: "Trial Project Operation"

Fifteen trainees will be assigned to three trial project sites at an approximate ratio of five trainees per site.

The experience will be for five weeks incorporating competency profile task practice in an operational setting, conferences and seminars as scheduled (and described in earlier task descriptions).

Trainees will interact with advisors and training staff, many of whom will continue into the actual projects, Event IV.

TIMELINE

EVENT III: THE TRIAL PROJECT(S)*

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1. Field Problems Seminar Development	3	TR	PPS				├	┤					
2. Conference and Supervision Training Mat.	6	TR	TR			├	─	┤					
CONTINUING TASKS													
1. Selec. (or Crea.), Staff. & Plan. of the Trial Project	18	TR	NWREL PPS TR	├	─	─	─	┤					
2. Site Arrangements	10	TR	NWREL PPS TR			├	─	┤					
3. Sche. Seminars, Conf., Staff Meetings	1	TR	NWREL PPS TR					├┤					
4. Content Seminar Planning	4	TR	TR				├	┤					
5. Content Seminar Operation	5	TR	NWREL PPS TR					├	┤				
6. Field Problems Seminar Operation	5	TR	NWREL PPS TR					├	┤				
7. Conf./Supervision Training and Operation	6	TR	NWREL PPS TR					├	┤				
8. Assessing of Competence in Context	8	TR	NWREL PPS TR				├	─	┤				
9. Trial Project Operation*	5	TR	NWREL PPS TR					├	┤				
TOTAL													

*Figured on the basis of three trial projects and 15 trainees.

Task Descriptions to Accompany Timeline Charts
Event IV - Actual Project Assignments

Development Task 1: "Procedure for Describing Project in Detail"

The specific procedure will be developed and may consist of the data collection techniques developed by Schalock, et al., (1970) for describing a project.

Development Task 2: "Maximum Fit--Computer Matching Program"

To achieve the best possible fit between projects available and trainee desires as reflected in their competency profile, a computer program will be developed.

Development Task 3: "Orientation Program for Each Site"

The major development effort which must be done for orientation purposes is the work on orienting trainees to an institution. This will take an interview team to develop the information, and another specialist to put it into an orientation package.

Development Task 4: "Project Site Arrangements (Per Site)"

As soon as the number of trainees to be placed at a site has been determined, the core staff must negotiate with the site institution for the necessary support facilities and problem-handling mechanisms to permit the training program to operate. It is anticipated that the Governing Council will facilitate such negotiations. The most necessary arrangements seem to be staffing, staff training and staff relationships; space for offices, seminars, and the library; and the problem-handling mechanisms.

Continuing Task 1: "Assembly of Detailed Information on Each Training Site"

Each project nominated as a possible training project will be visited by a project analysis team trained in the data collection techniques developed for describing a project. Out of this procedure will fall a complete description of the proposed training project.

Once a preliminary determination of possible training projects is made, based on the match between the tasks to be done and the needed training experiences, interviews must be conducted with the project director and the project staff to determine their receptivity to becoming a training project and to undergoing instruction in running their project as a training project.

Assuming success in this, a procedure must be established for negotiating trainee placements and experiences when the time comes. The description of the project must be updated, and used as a basis for determining what trainee experiences will be provided for incoming trainees. These agreed-upon experiences must be written into a contract for the trainees and the training project.

Continuing Task 2: "Matching of Trainees to Available Experiences"

Since each trainee will indicate his first three preferences for areas of concentration, it is a simple mathematical procedure to maximize the fit between these choices and the available training experiences. Probably the computer program would be used to calculate this. Once trainees were matched with projects, the detailed specification of the experiences of the trainee would be worked out with the project director, and written into an agreement.

With the experiences specified, it would be a simple matter to determine the length of time the trainee would be with the project, depending on the timelines of the project and the availability of the experiences.

Continuing Task 3: "Project Site Operation"

Operation assumes five trainees (not necessarily the same persons) for a period of one year at a site.

Products from tasks accomplished in previous event descriptions will be utilized.

TIMELINE

EVENT IV: ACTUAL PROJECT ASSIGNMENT(S)*

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS 1. Procedure For Describing Proj. in Detail	4	TR	OSU TR			├────	────┤						
2. Maximum Fit - Computer Matching Program	4	TR	OSU						├──┤				
3. Orientation Program For Each Site	3	TR	NWREL							├──┤			
4. Proj. Site Arrangements (Per Site)	2	TR	NWREL PPS TR						├─┤				
CONTINUING TASKS 1. Assembly of Detailed Info. on Each Tr. Proj.	6	TR	NWREL PPS TR				├────	────┤					
2. Matching of Trainees to Avail. Exper.	6	TR	TR						├────	────┤			
3. Project Site Operation	48	ALL	NWREL PPS TR								├────	────	──── ...
TOTAL													

*Most trainees will have several assignments.

Task Descriptions to Accompany Timeline Charts
Event V - Termination Process

Development Task 1: "Certification Standards (Program)"

Certificates which list and testify to competence must be developed. The nature of these certificates and the issuing body must be determined.

Appropriate certificates will be printed.

Development Task 2: "Certification Standards (Academic)"

A determination of course and degree levels, if any, appropriate to sets of training experiences must be made.

It is anticipated that the Governing Council (and particularly its degree-granting institutional members) will resolve this issue.

Continuing Task 1: "Job Market Survey"

Job opportunities in the field for trainees who have completed their programs must be determined and updated by the consortium coordinating unit.

Continuing Task 2: "Placement of Certified Trainees"

Placement will be an ongoing responsibility of the central program office which will identify potential employers, translate needs into competency profiles, match trainees to job opening profiles, and notify parties of a possible match.

TIMELINE

EVENT V: PLACEMENT PROCESS

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Certification Standards (Program)	4	TR	TR	├──┤									
2.Certification Standards (Academic)	8	TR	OSU UW UO ST.BOARD	├──	──┤								
CONTINUING TASKS													
1.Job Market Survey	12	TR	STATE BOARD						├──	──	──┤		
2.Placement of Certified Trainees	48	ALL	TR UofW OSU UofO									├	── ...
TOTAL													

APPENDIX J

CONSORTIUM ORGANIZATIONAL STRUCTURE
ROLES, FUNCTIONS AND PHASES

In this appendix various aspects of program management are displayed. Although areas of this topic are treated in part in other divisions of the Final Report, the emphasis here will be upon the identification and explanation of the organizational structure, the functions to be carried out, the operating roles involved and how the location of personnel/functions changes over the period of federal funding and into the fourth year.

On page J-2 is the proposed organizational chart for the total program operation during the first year of federal funding. Reference to later charts and text will assist in a more complete understanding of this chart.

The first year's organizational chart is followed (on pages J-3 - J-8) by a description of all functions to be performed at both the training coordinating unit and the sites/projects.

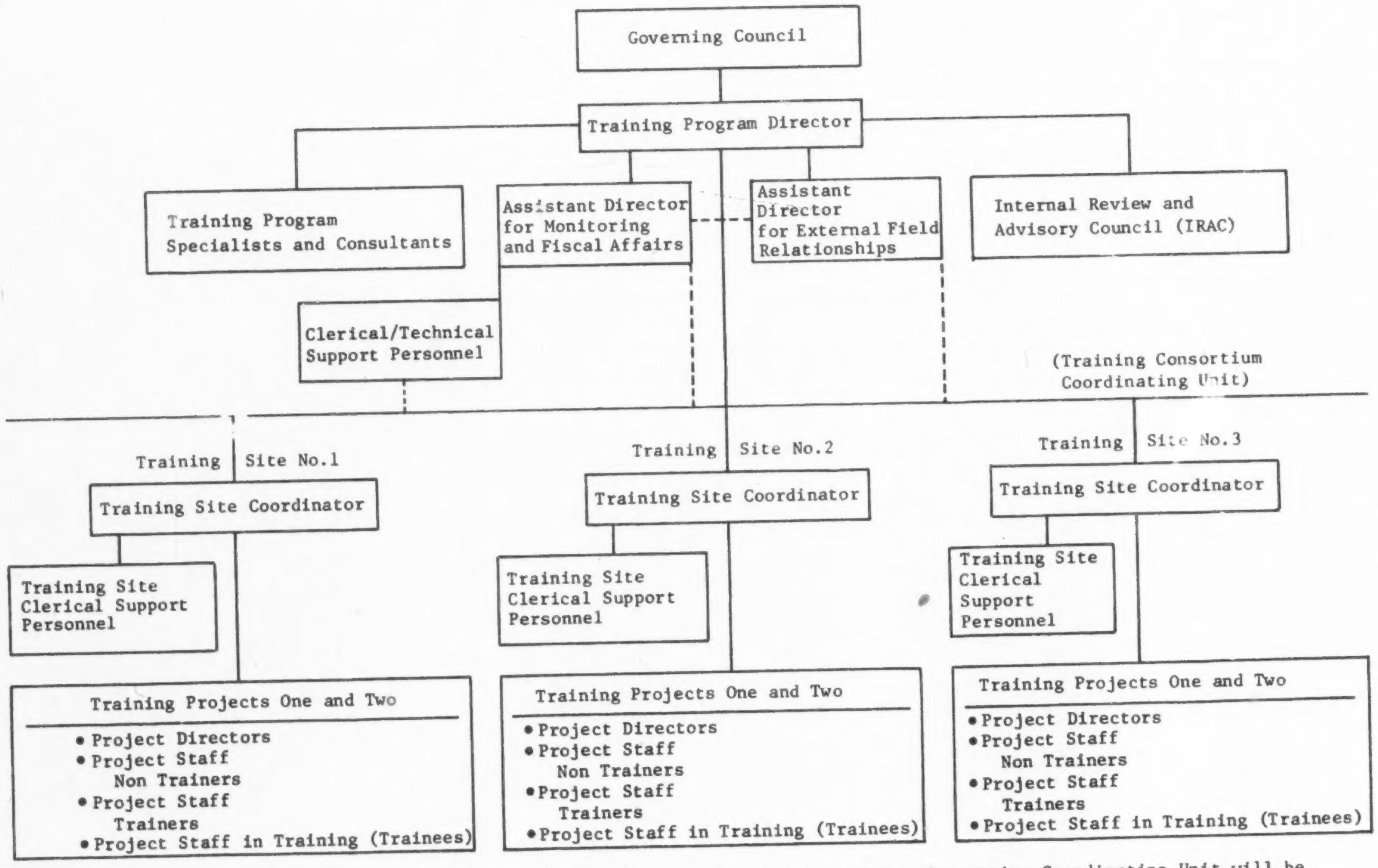
Roles by function are displayed in chart form on pages J-9 and J-10. Development, evaluation and operation activities are identified.

The charts are followed by complete role descriptions of primary staff operating at the coordinating unit and the operating sites/projects (see pages J-11 - J-18).

Finally, the phasing of the organizational structure over four years is shown in chart form on page J-19.

PACIFIC NORTHWEST TRAINING CONSORTIUM ORGANIZATIONAL CHART

Operating Year One


Governing Council
Training Program Director
Training Program Specialists and Consultants
Assistant Director for Monitoring and Fiscal Affairs
Assistant Director for External Field Relationships
Internal Review and Advisory Council (IRAC)
Clerical/Technical Support Personnel
(Training Consortium Coordinating Unit)
Training Site No.1
Training Site Coordinator
Training Site Clerical Support Personnel
Training Projects One and Two
• Project Directors
• Project Staff Non Trainers
• Project Staff Trainers
• Project Staff in Training (Trainees)
Training Site No.2
Training Site Coordinator
Training Site Clerical Support Personnel
Training Projects One and Two
• Project Directors
• Project Staff Non Trainers
• Project Staff Trainers
• Project Staff in Training (Trainees)
Training Site No.3
Training Site Coordinator
Training Site Clerical Support Personnel
Training Projects One and Two
• Project Directors
• Project Staff Non Trainers
• Project Staff Trainers
• Project Staff in Training (Trainees)

NOTE: During the first year only the Training Consortium Coordinating Unit will be located physically at one place, Teaching Research, Monmouth, Oregon. The top six positions in the above chart (director, assistant directors, training site coordinators) will be staffed by personnel from the three Universities. During years two and three, the Training Consortium Coordinating Unit's functions and personnel will be decentralized physically to the three University sites.

THE FUNCTIONS OF THE TRAINING COORDINATING UNIT

In the next two charts, roles and functions for the training coordinating unit and the site/project are listed.

The identity of roles would appear self-explanatory (for further detail, see pages J-11 - J-18) but the reader would perhaps benefit by a brief explanation of all functions listed on the two charts. Functions are discussed below:

Consortium Procedures

The operation of the consortium procedures must be developed and evaluated during the three years of federal funding. Following this period, either the consortium will be maintained or the universities will have developed sufficiently simple procedures for cooperation among themselves and with the training sites that the consortium appears no longer necessary as a formal organization.

Site Selection/Termination Procedures

Three initial training sites will be selected and carefully monitored for both their training effectiveness and their efficiency. It can be anticipated the number of sites will increase during the three years of federal funding, possibly to seven or eight. Procedures for site selection will be developed and evaluated over time. In certain circumstances it is possible that one or more sites must be terminated from their involvement in the training program. Procedures for arriving at such a decision also must be accomplished at the training coordinating unit.

Training Project Selection/Termination Procedures

Within each training site a number of potential projects will be available as training projects. Procedures for project selection must be developed and evaluated. The effectiveness of these projects as training contexts must be monitored. The selection of new projects when either one training project terminates or another appears potentially effective as a training context must be accomplished. The training coordinating unit must oversee training project selection, monitoring, replacement and possible termination.

Training Materials for Staff and Trainees

During the initial years of the training program, a great many materials must be developed for trainees and staff. Each of these materials, plus all existing materials which can be located, will be carefully evaluated for their effectiveness in training sites and in training project contexts. By the end of federal funding, a completely developed set of training packages will be available to each training site. The training coordinating unit will supervise this development, evaluation and operating task.

Program Procedures

Since no large scale clinical training program in a field setting has been mounted with the particular theoretical base of the one being proposed, a number of critical operating decisions must be made without benefit of any empirical data. Such things as the relationships between the training site coordinator and the training project directors or the relationships between trainees and training project staff members are unclear. By necessity, they must remain so until various ways of establishing these relationships and making decisions are actually developed in the field setting and evaluated for their effectiveness. The training program will carefully establish alternate feasible procedures at different sites and evaluate relative effectiveness on the basis of empirical data. The training coordinating unit will develop alternate program operation procedures, evaluate them in various contexts and select the most effective ones for general implementation at the end of the three years of federal funding.

Staff Selection/Termination Procedures

The training coordinating unit will develop an effective procedure for staff recruitment, selection and termination. They will evaluate procedures on the basis of effectiveness of individual staff members in their training roles at various training sites. By the end of federal funding, effective operating procedures for staff selection, staff evaluation and staff promotion or career advancement will be accomplished.

Staff Training Procedures

Recruited staff members at all operational levels, regardless of their sophistication, will need special training in how to effectively instruct trainees in an operating project context. The training coordinating unit will develop materials and programs to train staff, evaluate the effectiveness of these materials and programs and develop, by the end of the federal funding period, an effective finalized mechanism for giving staff members the additional training they need to perform effectively in their new field-centered roles.

Trainee Monitoring and Termination Procedures

Trainees' progress in accomplishing their negotiated profile must be carefully monitored. Monitored data will be primarily generated from the field site but the training coordinating unit must maintain an up-to-date file on the status of each trainee and develop procedures for identifying and responding to problems which trainees may experience. The development, evaluation and operation of trainee monitoring and termination procedures are viewed as crucial to the success of the program.

Traineeship Scheduling

In order to allow trainees to accomplish all of their negotiated training objectives, it may be necessary to shift a trainee from one project to another within the same site or even to a different site. The overall scheduling of trainees, the overseeing of shifts from one site or project to another and the development of schedules which permit every trainee to accomplish objectives within a reasonable period of time must be performed by the training coordinating unit.

Matching Trainees to Known Job Openings

It is essential that a very close relationship be maintained continually between job positions in the field, the qualifications for these job positions and the terminal profiles toward which trainees are working. Effective mechanisms will be developed for feeding information about job openings into the negotiation sessions of trainees and for evaluating these procedures and making them more effective over the three-year period of federal funding. By the end of that time, the training program must have a regular, routine mechanism for relating the training program to the needs of the field as well as to the needs of the trainees. The training coordinating unit must perform this function.

Fiscal Control

The constraints under which the training programs must operate after the federal funding is phased out are severe. There must be a very careful and highly developed cost control, cost accounting and cost effectiveness procedure to continually insist the training program operate as soon as possible within realistic constraints which will be present after federal funding ends. The development of these fiscal control procedures and the effective use of them in monitoring the training program is critical for the long-term maintenance of the training model and training program. They must be accomplished by the training coordinating unit.

Clerical/Technical Services

A large number of the training coordinating unit functions are merely monitoring procedures but a number involve actual work which must be accomplished at the training coordinating unit. For accomplishing this work there will be a group of highly skilled clerical and technical support personnel at the training unit to do the monitoring and to maintain many of the operating procedures as they develop. The determination of the exact nature of these clerical and technical support roles, the evaluation of these role descriptions and the development of an operating central staff are critical tasks of the training coordinating unit during the period of federal funding.

Trainee Selection Procedures

The development and evaluation of procedures for operating trainee selection mechanisms must be accomplished by the training coordinating unit in a form easily utilized by existing sites at the end of the federal funding period.

Trainee Induction Procedures

The development of a set of procedures for trainee induction into the overall training program, the evaluation of these procedures and the determination of a set of operating procedures for routinely accomplishing this task will be completed by the training coordinating unit. Each training site will have its own induction procedures unique to and descriptive of the training site and the training projects at that site. The training coordinating unit, however, will be responsible for establishing effective mechanisms for overall trainee induction.

Job Development Procedures

The development and evaluation of the operating procedures utilized in locating suitable job opportunities for trainee placement will be a task assigned to the training coordinating unit.

Provision of Credentials

Most of the trainees will deserve some credentials by the university members of the consortium, probably at the level of a master's degree in development or evaluation. All of the trainees deserve some kind of complete statement of credentials from the training program. This statement will sketch in detail the kinds of competencies which have been developed by the trainee in the training program and the context within which these competencies have been developed and demonstrated. A critical task of the training coordinating unit will be the development of mechanisms for the:

1. Provision of credentials
2. Evaluation of the effectiveness of different kinds of credentials
3. Establishment of an operating procedure awarding credentials reflecting various sets of competencies

Public Relations and Dissemination

The training program must maintain a continual program of public relations both among members of the consortium and among other potential employing institutions in the field. The training program also has a responsibility to the wider world of training programs by disseminating procedures and mechanisms which have demonstrated effectiveness. The development of such public relation and dissemination mechanisms and the establishment of effective operating procedures must be accomplished by the training coordinating unit within the three-year federal funding.

THE FUNCTIONS OF THE SITE/PROJECT

The following functions involving development, evaluation and operation must be performed by the site/project locus of management although in many instances strong assists will be available from, and coordinated with, the training coordinating unit.

Trainee Monitoring

Efficient procedures must be cared for at the site/project level for developing, evaluating and operating an onsite monitoring system. Such a system would allow detailing of periodic progress by trainees in achieving their negotiated profile. Monitoring data generated will be supplied to the training coordinating unit.

Trainee Instructional Materials (Nonseminar)

This function concerns the development, evaluation and operation of suitable instructional materials not initially available at the site. Although anticipated instructional resources may be inferred from trainee needs (as per trainee/site profile interface) ongoing experiences will further dictate materials to be generated at the site level. The site will also serve a field test function for evaluating the operational effectiveness of materials developed at the training coordinating unit.

Trainee Content Seminar

Periodic seminars conducted by the training site coordinator utilizing a variety of content or profile task-directed instructional materials will be held for trainees and offered to other project staff members.

Presentational mode, content alternatives, participant response and a host of related concerns must be carefully developed, evaluated and operated over time. The coordinating unit must assess each training site's experience to determine optimal seminar conditions.

Trainee Field Problems Seminar

In addition to content concerns, a trainee's experience of problems encountered within the project training context must be cared for. This seminar allows trainees (and others) to share concern for problems and solutions. It will deal with a variety of areas, including interpersonal relationships.

As with the content seminar, the field problems seminar may operate in a variety of ways at different sites and requires site treatment and reporting to the coordinating unit.

Trainee Supervision/Tutorial

There will be a close working relationship within the project context between trainees and other project staff who serve as trainers at this level. Optimal procedural development, evaluation and operation will occur over the funding period in order to achieve appropriate guidelines for the supervision/tutorial process.

Staff Training

Not only is staff training an ongoing developmental process with existing staff, but there will also be the situation of staff turnover necessitating a complete training cycle.

The development, evaluation and operation of appropriate site-based training programs for staff will be critical to the continuity and success of the entire program.

Clerical/Technical Support

Site functions will generate a great deal of materials and data both utilized at the site and transported to the coordinating unit. Sufficient clerical/technical support at the site level is essential to guarantee effective operation. Procedures for the operation of the support arm will have to be developed and evaluated.

Other Trainee Instructional Experiences

On occasion, it may be found necessary to supplement a trainee's onsite instructional experiences by arranging offsite experiences such as limited course work at a university, attendance at a skill-building conference, observation of performance in a different context, etc. Procedures for managing the development, evaluation and operation of this function must be generated throughout the duration of the program.

TRAINING COORDINATING CENTER FUNCTIONS

Year One

Roles	Consortium Procedures			Site Selection/ Termination Procedures			Training Project Selection/ Termination Procedures			Training Materials for Staff & Trainees			Program Procedures			Staff Selection/ Termination Procedures		
	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper
Program Director	R E	E	R E	R E	R E	E	R E	R	R	R E	R		R E	E	R E	E	E	R E
Assistant Director For Monitoring and Fiscal Affairs	P	P			P		P	E			E		P	S	S	S	S	S
Assistant Director For External Field Relationships				S	S	S							P		S			
Clerical/Technical	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Governing Council	P	R	P	P	P	R							P	R	P	R	R	S
Internal Review and Advisory Committee (IRAC)	P			P		P	P	P	P	P	P	P	P	P		P	P	
Training Specialists										S		S			P S			
Training Consultants										S		S			P S			
Training Site Coordinators Only (Not as part of IRAC)							S	S	E	S		R E			E	S	P	S

Roles	Staff Training Procedures			Trainee Monitoring & Term. Procedures			Trainee-ships Scheduling			Matching Trainees To Known Job Openings			Fiscal Control			Clerical/ Technical Services		
	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper
Program Director	R E	R E	S					R										
Assistant Director For Monitoring and Fiscal Affairs		S		R	E	R	R E	E	R E	R E	R E	R E	R E	E	R E	R E	R E	R
Assistant Director For External Field Relationships					P	P					P		P	P	S	P	P	
Clerical/Technical	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	P	P	E
Governing Council		P		P	R								S	R				
Internal Review and Advisory Committee (IRAC)	P	P	S	P	P		P	S			S						P	
Training Specialists		P	S													P	P	
Training Consultants		P	S													P	P	
Training Site Coordinators Only (Not as part of IRAC)	E	S	R E	E	P	E		P			P				S	P	P	

Roles	Trainee Selection Procedures			Trainee Induction Procedures			Job Development Procedures			Credential-ing Procedures			P.R. & Dissemina-tion Procedures		
	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev	Eval	Oper	Dev.	Eval	Oper
Program Director								R	S			S	P		S
Assistant Director For Monitoring and Fiscal Affairs										P	P				
Assistant Director For External Field Relationships	R E	E	R E	R E	R E	R	R E	E	R E	E	E	R E	R E	E	R E
Clerical/Technical	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Governing Council	S	R	S				S	P	S	R	R	S	P	R	S
Internal Review and Advisory Committee (IRAC)		P		P	P	S		P							
Training Specialists															
Training Consultants															
Training Site Coordinators Only (Not as part of IRAC)	P	P		S	S	E			P			S			P

Development of Procedures
Evaluation of Those Procedures
Operation of the Procedures to Perform the Function

CODE: Responsible for = R
Executes = E

Only Participates In = P
(Does not help execute or carry responsibility for)

Only Supports Execution = S
(No responsibility, no participation)
May Recommend or Suggest = ☐

TRAINING SITE FUNCTIONS

Year One

Roles	Trainee Monitoring			Trainee Instructional Materials (Non Seminar)			Trainee Content Seminar			Trainee Field Problems Seminar			Trainee Supervision/ Tutorial			Staff Training			Clerical/ Technical Support			Other Trainee Instructional Experiences		
	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper	Dev.	Eval	Oper
Training Site Coordinator	R	R		R E	R E	R E	R E	R E	R E	R E	R E	R E	R	R		R E	R E	R E	R E	R E	R	R E	R E	R E
Training Site Clerical/ Technical Support Personnel	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S		P	E	S	S	S
Training Project Director	P		P		P	P	P	P	P S	P	P	P S	P	P	P	P	P	P	P	P			P	
Training Project Staff/Trainers	E	E	R E	P S	P S	P S	P S	P S	P S	P S	P S	P S	E	E	R E	P	P	P	P	P		P	P	
Training Project Staff (Non Trainers)						P			P	P	P	P								P				
Training Project Trainees (Staff Members in Training)	P	P	P	P	P	E P	P	P	P	P	P	P	P	P	P	P	P			P		P	P	P

CODE: Responsible For = R
Executes = E
Only Participates In = P
(Does not help execute or carry responsibility for)

Only Supports Execution = S
(No responsibility, no participation)
May Recommend or Suggest = ☐

"Participation in Development" means providing inputs
"Participation in Operation" means attending or having access to
"Supporting" means doing some of the work

COMPLETE ROLE DESCRIPTIONS OF PRIMARY STAFF OPERATING AT THE TRAINING COORDINATING UNIT AND THE OPERATING SITE/PROJECTS

Staffing and descriptive role profiles apply to the first eighteen months of operation (six months for the initial planning and development period and twelve months for the first operating year). By the conclusion of the federal funding period (third operating year) roles and staff will have altered considerably. A gradual transfer of the Training Coordinating Unit will have occurred so that remaining centralized coordinating responsibilities will be performed at and by the university consortium members: Oregon State University, University of Oregon and University of Washington.

Note of explanation:

The functions performed at the Training Coordinating Unit involve the development of procedures, the evaluation of those procedures and the operation of the procedures to perform a function.

TRAINING COORDINATING UNIT*

Governing Council

NUMBER OF PERSONS: (Undetermined)

COMPENSATION: Travel and per diem

ROLE PROFILE: The Governing Council consists of one representative from each consortium member institution plus any additional persons the Council may elect to serve.

The Council meets periodically, serves as the policy-making body but also performs the following functions:

Major Responsibilities:

Evaluates the procedures by which the consortium operates
Operates the procedures for site selection/termination
Evaluates program procedures
Develops and evaluates procedures for staff selection/termination
Evaluates procedures by which trainee progress is minitored and trainee involvement is terminated
Evaluates procedures for fiscal control
Evaluates trainee selection procedures
Develops and evaluates procedures for credentialing trainees after completion of training programs
Evaluates procedures for public relations and dissemination which the consortium desires

- -

Training Program Director

NUMBER OF PERSONS: One

COMPENSATION: $22,000 annual salary plus travel and per diem

ROLE PROFILE: The Training Program Director is the executive officer for the program and has overall responsibility for coordinating and directing program development, evaluation and operation.

In addition to this responsibility, the Training Program Director will pay specific attention to selected functions listed below:

Major Responsibilities:

Develops and operates the procedures by which the consortium works
Develops and operates the procedures for site selection/termination
Develops and operates the procedures for training project selection/termination
Overseeing the development of training materials for staff and trainees
Develops and oversees the operation of the procedures by which the training program runs

---

*Located at Teaching Research

Develops and operates the procedures for staff selection/termination
Develops and operates the procedures for staff training
Evaluates all of the above plus the scheduling of trainees into experiences and job identification/placement procedures

- -

Training Program Assistant Director For External Field Relationships

NUMBER OF PERSONS: One

COMPENSATION: $19,000 annual salary plus travel and per diem

ROLE PROFILE: The Assistant Director for External Field Relationships is responsible to the Director. His primary tasks include selection and induction of trainees, job development procedures, provision of credentials and public relations and dissemination.

Specifically, the Assistant Director for External Field Relationships will play the following development, evaluation and operation roles for the functions listed below:

Major Responsibilities:

Develops and operates the procedures by which the trainees are selected
Develops and operates the procedures by which trainees are inducted into the training programs
Develops and operates the procedures for job identification and job placement
Develops and operates the procedures for credentialing trainees after they have completed the training programs
Develops and operates the procedures for public relations and dissemination which the consortium desires
Evaluates all of the functions above

- -

Training Program Assistant Director For Monitoring and Fiscal Affairs

NUMBER OF PERSONS: One

COMPENSATION: $19,000 annual salary plus travel and per diem

ROLE PROFILE: The Assistant Director for Monitoring and Fiscal Affairs is responsible to the Director. His primary tasks include monitoring (program, staff, site, project and trainees), scheduling, and matching trainees to job placement, accounting and supervision of the clerical and technical staff.

Specifically, the Assistant Director for Monitoring and Fiscal Affairs will play the following development, evaluation and operation roles for the functions listed below:

Major Responsibilities:

- Develops and operates the procedures by which trainee progress is monitored and trainee involvement is terminated
- Develops and operates the procedures for scheduling trainees into appropriate experiences for the competencies they need
- Develops and operates the procedures for matching trainees to potential job openings
- Develops and operates the procedures for fiscal control
- Develops and operates the procedures for all clerical/technical personnel and the services they provide
- Evaluates all of the functions above and conducts the evaluation of project selection/termination training materials for staff and trainees

- -

Training Program Clerical/Technical Support Personnel

NUMBER OF PERSONS: Three

COMPENSATION: $7,200 annual salary each ($21,600 total)

ROLE PROFILE: The clerical staff is supervised by the Assistant Director for each function and for the Clerical/Technical Services functions. They participate in both development and evaluation and, of course, execute operation.

Specifically the major responsibilities are to provide support for all of the Training Coordinating Unit functions.

- -

Internal Review and Advisory Committee (IRAC)

NUMBER OF PERSONS: Twelve (tentative)

COMPENSATION: Travel and per diem

ROLE PROFILE: The Internal Review and Advisory Committee (IRAC) is composed of each site coordinator, each project director and one trainee from each site. The primary purpose of IRAC is to periodically serve as an advisory body to the Training Coordinating Unit staff.

The Committee has no major responsibilities other than participation in and support for all Coordinating Unit functions.

Training Consultants

NUMBER OF PERSONS: (Undetermined)

COMPENSATION: $100 per day plus travel and per diem

ROLE PROFILE: The occasional utilization of consultant expertise will be required on a per-day basis.

Consultant services will be provided as needed in the conduct of the following functions.

- Development and operation of training materials for staff and trainees
- Operation of training program procedures
- Evaluation and operation of staff training procedures
- Development and evaluation of clerical/technical services

These persons may also be utilized on call from Site Coordinators.

- -

Training Site Coordinators*

NUMBER OF PERSONS: Three

COMPENSATION: $17,000 annual salary each ($60,000 total) plus travel and per diem

ROLE PROFILE: The Training Site Coordinator's unique contribution at the program coordinating center is as follows:

Major Responsibilities:

- Carries out the procedures for training project selection/termination
- Oversees the use of training materials for staff and trainees
- Oversees the operation of program procedures
- Develops and operates staff training procedures
- Develops and operates the procedures by which trainee progress is monitored and trainee involvement terminated
- Operates the procedures by which trainees are inducted

---

*The Training Site Coordinator is the direct linkage agent between the Training Coordinating Unit and the Operating Site/Projects. Therefore, his function at the Training Coordinating Unit is displayed here and his function at the Training Site/Projects is displayed in that section.

SITE/PROJECT CENTERS*

Training Site Coordinator

NUMBER OF PERSONS: Three (one per site)

COMPENSATION: $17,000 annual salary plus travel and per diem ($60,000)

ROLE PROFILE: The Training Site Coordinator serves as the primary agent between the operating site and the training coordinating center. He has specific role functions to perform at the training coordinating center (described previously) and at the training site level.

Specifically, his role in development, evaluation and operation activities within training site functions are:

Major Responsibilities:

Develops and operates the procedures for trainee monitoring in the setting, with respect to his growth in competencies
Develops and operates the training seminars for trainees in the training site
Develops and operates staff training procedures
Develops and operates trainee instructional materials
Develops and operates all clerical technical support personnel
Develops and operates all other trainee instructional experiences
Evaluates all of the above functions

- -

Training Site Clerical/Technical Support Personnel

NUMBER OF PERSONS: Six (three FTE) or two (one FTE) at each site

COMPENSATION: $3,000 annual salary per person or $6,000 per site ($18,000)

ROLE PROFILE: One FTE per site is required to function in a support role for development, evaluation and operation of all functions. In the Clerical/Technical Support function they will participate in evaluation and conduct the operation.

---

*Three sites and two projects per site to be selected.

Training Project Director
(Two Projects Per Site)

NUMBER OF PERSONS: Six (.1 FTE each) or two (.1 FTE each) at each site

COMPENSATION: None

ROLE PROFILE: The Project Director is directly involved in all activities connected with the training program.

Major responsibilities include participation and support in the development, evaluation and operation of all training site functions.

Training Project Staff/Trainers
(Two Projects Per Site)

NUMBER OF PERSONS: Six (three FTE) or one (.5 FTE) per project and two (one FTE) per site

COMPENSATION: $7,500 annual salary per person or $15,000 per site ($45,000)

ROLE PROFILE: Staff/Trainers will have a direct, day-by-day relationship with trainees (five per site, Year One) providing support and participating in all training site functions.

His role in development, evaluation and operation activities within the training site in addition to support and participation functions are:

Major Responsibilities:

Operates the trainee monitoring procedures
Operates and evaluates the trainee supervision/tutorial function

Training Project Staff - Nontrainers
(Two Projects Per Site)

NUMBER OF PERSONS: Undetermined

COMPENSATION: None

ROLE PROFILE: Project team members are not directly involved in the training program. These persons may elect to participate in training site functions as the need arises.

Team members may become involved in the use of instructional materials with trainees, participate in seminars, and assist in the evaluation of Clerical/Technical Support personnel.

Training Project Trainees
(Staff Members in Training)

NUMBER OF PERSONS:	Fifteen (five per site; two or three per project)
COMPENSATION:	$5,000 annual stipend (contributed directly by the site) or $25,000 per site plus relocation expense, travel and per diem.
ROLE PROFILE:	Trainees participate in all activities within functions with the exception of staff training operation and Clerical/Technical Support development and operation. Trainees also share in the execution of trainee instructional materials (nonseminar).

PACIFIC NORTHWEST TRAINING CONSORTIUM
DECENTRALIZATION OF COORDINATING UNIT FUNCTIONS AND STAFF IN TERMS OF FTE
OPERATING YEARS ONE THROUGH FOUR

FUNCTIONS/STAFF	YEARS	INSTITUTIONS			
		Teaching Research	Oregon State University	University of Oregon	University of Washington
.Training Program Director	One Two Three Four	1.00 FTE .50 FTE .25 FTE - 0 -	- 0 - .25 FTE .25 FTE .33 FTE	- 0 - .25 FTE .25 FTE .33 FTE	- 0 - .25 FTE .25 FTE .33 FTE
.Assistant Director for Monitoring and Fiscal Affairs	One Two Three Four	1.00 FTE .75 FTE .25 FTE - 0 -	- 0 - .25 FTE .25 FTE .33 FTE	- 0 - - 0 - .25 FTE .33 FTE	- 0 - - 0 - .25 FTE .33 FTE
.Assistant Director for External Field Relationships	One Two Three Four	1.00 FTE .25 FTE .25 FTE - 0 -	- 0 - .25 FTE .25 FTE .33 FTE	- 0 - .25 FTE .25 FTE .33 FTE	- 0 - .25 FTE .25 FTE .33 FTE
.Clerical/Technical Support Personnel	One Two Three Four	3.00 FTE 1.50 FTE .75 FTE - 0 -	- 0 - .75 FTE .75 FTE 1.00 FTE	- 0 - .50 FTE .75 FTE 1.00 FTE	- 0 - .25 FTE .75 FTE 1.00 FTE
TOTAL FTE	One Two Three Four	6.00 FTE 3.00 FTE 1.50 FTE - 0 -	- 0 - 1.50 FTE 1.50 FTE 2.00 FTE	- 0 - 1.00 FTE 1.50 FTE 2.00 FTE	- 0 - .75 FTE 1.50 FTE 2.00 FTE

APPENDIX K

The following names and vitae were submitted by the consortium members, particularly the Universities, of present staff members who might be made available to fill the positions listed in the Organizational Chart. Accompanying the names are recommendations for specific positions as indicated below:

Training Program Director

Jerry L. Fletcher	Teaching Research
Michael G. Saslow	Teaching Research
Gilbert Sax	University of Washington

Assistant Director

Gerald L. Becker	Oregon State University
Ambrose A. Clegg	University of Washington
Thomas C. Lovitt	University of Washington
Percy B. Peckham	University of Washington
C. Edward Tyler	Northwest Regional Educational Laboratory
Floyd D. Urbach	Teaching Research
John N. Williamson	Teaching Research

Training Site Coordinators

Edwin L. Anderson	Oregon State University
Richard Lee Andrews	University of Washington
Cecil Clark	University of Washington
Robert G. Cope	University of Washington
Wayne Courtney	University of Oregon
Gregory Maltby	University of Oregon

VITA

Name: Jerry Lee Fletcher

Present Position:

Coordinator of Research and Evaluation,
John Adams High School

Assistant Research Professor,
Teaching Research

Education:

Harvard College, A.B. cum laude - History and Science, 1963
Harvard Graduate School of Education, M.A.T. - Social Studies, 1964
Harvard Graduate School of Education, Ed.D. - Social Studies Education, 1969

Professional Experience:

Teacher - U.S. History and Research Seminar in American Problems, 1965-66
  Arlington High School, Arlington, Massachusetts
Consultant on Educational Games, 1966-
  Educational Development Center, Cambridge, Massachusetts
Supervisor of Curriculum Implementation, 1966-68
  Arlington Junior High East, Arlington, Massachusetts
Research Assistant, 1966-67
  Harvard Graduate School of Education, Cambridge, Massachusetts
Master Teacher, 1968
  Harvard-Newton Summer Program, Newton, Massachusetts
Teaching Fellow, 1968-69
  Harvard Graduate School of Education, Cambridge, Massachusetts
Instructor, 1969
  Harvard Graduate School of Education, Cambridge, Massachusetts

Publications:

Co-editor (with Saul Yanofsky and Arthur Blackman) Student-Faculty Dialogue on Courses, Harvard Graduate School of Education, 1966.

Co-editor (with seven other graduate students) Student-Faculty Dialogue on Courses, Harvard Graduate School of Education, 1967.

Co-author, (with Saul Yanofsky and Arthur Blackman), "Students Rate their Profs and Courses." Phi Delta Kappan, February, 1967, Vol. XLVIII, Number 6, pp. 266-269.

"Research into Teaching Abstract Verbal Concepts to Jr. High School Children," report of research conducted (with Joseph Grannis, Associate Professor of Education, Teachers College, Columbia University) under a grant from the Research and Development Center, Harvard Graduate School of Education (mimeo).

Co-author (with Allen Dobbins, Assistant Professor of Education, Portland State University, Portland, Oregon), "An Approach to Evaluating Learning in Games: A Case Study." (Presented to AERA Convention, March, 1970).

Co-author (with Donald Koeller, and David S. Martin) "The Caribou Hunting Games", a chapter in a book edited by Michael Inbar and Clarice Stoll, Developing Social Simulations, New York: Free Press, to be published Spring, 1970.

Review of Sarane S. Boocock and E. O. Schild (Eds.), Simulation Games in Learning, Beverly Hills, California, Sage Publications, Inc. for the journal Simulation and Games, April, 1970.

Co-author with John N. Williamson, The School as a Center for Educational Change: a Prospectus, Portland, Oregon 1970. (mimeo)

The Effects of Two Elementary School Social Studies Games: An Experimental Field Study, Unpublished Doctoral Dissertation, Harvard University, 1969.

Vita

Name: Michael G. Saslow

Education:

Harvard College, A.B., 1960
University of California-Berkeley, Ph.D., 1966

Work Experience:

Assistant Research Professor, Teaching Research, 1969-Present
  Development of cooperative and innovative educational improvement projects with the Dental School, Medical School, and other institutions training health personnel, especially in the areas of instructor training and mental health services training.
Assistant Director for Program Development, 1968-1969
  Washington/Alaska Regional Medical Program, Seattle.
Associate Director, Head Start Supplementary Training Project and
  Consultant, Program Division, 1967-1968, Seattle-King County Economic Opportunity Board (OEO).
Lecturer and Research Assistant Professor, 1965-1967,
  University of Washington.
Teaching Assistant and Reader, 1963-1964,
  Department of Psychology, University of California, Berkeley.
U.S. Public Health Service Pre-Doctoral Fellow in Psychology, 1961-1962
  University of California, Berkeley.
Assistant to President, 1959-1960
  Acoustic Research, Inc., Cambridge, Massachusetts.
Statistical and Evaluation Consultant, 1959
  Biophysics and Biophysical Chemistry Study Section, N.I.H., at M.I.T., Cambridge, Massachusetts.

Publications:

"Pitch Discrimination for Synthetic Vowels." *J. acoust. Soc. Amer.*, 1958. Co-authored with J. L. Flanagan.
"Frequency Discrimination as Measured by AB and ABX Procedures." *J. acoust. Soc. Amer.*, 1967.
"Conformity to Experimenter-Determined, Payoff Enforced, Criterion Levels in the Method of Random Staircases," with G. Semb, *Perception and Psycholophysics*, 1967.
"Latency for Saccadic Eye Movement," *Journal of the Optical Society of America*, 1967. (Part of Ph.D. Thesis)
"Effects of Components of Displacement Step Stimuli Upon Latency for Saccadic Eye Movement," *Journal of the Optical Society of America*, 1967. (Part of Ph.D. thesis)

VITA

Name: Gerald L. Becker

Present Position:

Associate Professor of Education
Oregon State University

Education:

University of Idaho, B.S. in Mathematics, 1950
University of Idaho, M.S. in Educational Administration, 1951
Portland State College
Oregon State University
University of Oregon, Ed.D., 1967

Professional Experience:

Secondary Teacher and Counselor, 1950-1954
    Coeur d'Alene Public Schools, Coeur d'Alene, Idaho
Elementary Principal, 1954-1955
    Coeur d'Alene Public Schools, Coeur d'Alene, Idaho
School Psychometrist, 1955-1956
    Lake Oswego Public Schools, Lake Oswego, Oregon
Director of Counseling, Guidance and Instruction, 1956-1962
    Lake Oswego Public Schools, Lake Oswego, Oregon
Instructor (Part Time), 1959-1965
    Division of Continuing Education, Portland, Oregon
Director of Counseling, 1962-1965
    Lewis and Clark College, Portland, Oregon
Instructor (Summer Session), 1965
    Portland State College, Portland, Oregon
    University of Portland, Portland, Oregon
Research Assistant, 1965-1967
    University of Oregon, Eugene, Oregon
Instructor (Summer Session), 1967
    Portland State College, Portland, Oregon
Associate Professor of Education, 1967-68
    Illinois State University, Normal, Illinois
Associate Professor of Education and Associate Director of Educational Research Center, 1968-Present
    Oregon State University, Corvallis, Oregon

Publications:

Farner, Frank, Lawrence D. Fish, Dale Tillery, Donald E. Tope, Leland L. Medsker, Gerald L. Becker, John Hakanson and Robert E. Hamill, A Study of the Requirements for Higher Education in the Area Served by Boise Junior College, Bureau of Educational Research, School of Education, University of Oregon, May, 1965.

Hines, Clarence, Carl D. Lang, Lawrence D. Fish, Gerald L. Becker, and James Rose, A Comprehensive Survey of the Hermiston Public Schools, Bureau of Educational Research, School of Education, University of Oregon, December, 1965.

Goldhammer, Keith, John E. Suttle, William D. Aldridge and Gerald L. Becker, Issues and Problems in Contemporary Educational Administration, Center for the Advanced Study of Educational Administration, University of Oregon, August, 1967.

Becker, Gerald L., "The Administrator-Staff Relationship and Its Effect Upon the Self-Concept of Children," Curriculum Bulletin, School of Education, University of Oregon, April, 1967.

Becker, Gerald L. and Clayton E. Thomas, "In-Service Training for Administrators--A Board's Responsibility?", Illinois School Board Journal. Springfield, Illinois, May-June, 1968.

Goldhammer, Keith and Gerald L. Becker, et. al. Issues and Problems in Elementary School Administration. Project completed, February, 1970.

Goldhammer, Keith and Gerald L. Becker, "What Makes a Good Elementary School Principal?" American Education, HEW, Office of Education, April, 1970.

VITA

Name: John N. Williamson

Present Position:

Coordinator of Development, Adams High School
Assistant Research Professor, Teaching Research

Education:

Duke University, A.B. - Mathematics, 1964
Carnegie - Mellon University, Ph.D. Candidate -Mathematics Economics, 1964-65
Harvard Graduate School of Education, M.A.T. -Mathematics, 1967
Harvard Graduate School of Education, Ed.D. Candidate - Curriculum and Supervision, 1967-

Professional Experience:

Mathematics Teacher, 1965-66
  Andover, Massachusetts
Teacher, 1968
  Roxbury Community School, Boston, Massachusetts
Master Teacher, 1968
  Harvard Newton Summer School, Newton, Massachusetts
Research Assistant, 1967-69
  Harvard University, Cambridge, Massachusetts
Assistant Director of Student Teaching, 1968-69
  Harvard Graduate School of Education

Publications:

"A General Structure for the Study of Prime Numbers," *Mathematics Teacher*, May, 1967.

"Teaching, Technology, and Turing," *Essays on the Computer in Education*, N.E.E.D.S., Cambridge, Mass., 1968.

"An Investigation of the Question, 'Can a Machine Teach?'," *Proceedings, New England Invitational Conference on Evaluation*, Holt, Rinehart, and Winston, June, 1969.

VITA

Name: Edward Tyler

Education:

University of Oregon, B.S., 1953
University of Oregon, M.Ed., 1961
University of Oregon, Post M. Ed. Work, 1966-68

Professional Experience:

History and English Teacher, 1953-55
    Reedsport Union High School, Reedsport, Oregon
English and Dramatics Teacher, 1955-57
    Albany Union High School, Albany, Oregon
Management Trainee, 1957-58
    J.C. Penney Company, Inc. Los Altos, California
English Teacher, 1958-59
    Fleming Junior High School, Los Angeles, California
English Teacher and Vice Principal, 1959-62
    Reedsport Union High School, Reedsport, Oregon
Superintendent-Principal, 1962-66
    Sherman County High School, Moro, Oregon
Graduate Assistant, 1966-67 (Graduate Assistantship)
    Oregon School Study Council, University of Oregon, Eugene, Oregon
Assistant Executive Secretary, 1967-68 (Graduate Assistantship)
    Oregon School Study Council, University of Oregon, Eugene, Oregon
Staff Specialist, 1968-69
    Northwest Regional Educational Laboratory, Portland, Oregon
    (monitor of Individually Prescribed Instruction sites)
Staff Specialist, 1969-70
    Northwest Regional Educational Laboratory, Portland, Oregon
    (Project Coordinator, Guam Education Project and assistant staff member in Laboratory product dissemination)

Publications:

Tyler, C. Edward, ed., Quarterly Report, Oregon School Study Council, University of Oregon, Eugene, Oregon, 1966-68, Vol. 7, Nos. 1,2,3,4; Vol. 8, Nos. 1,2,3,4.

Tyler, C. Edward, "Degree of District Financial Support in Providing Required Textbooks, Grades Nine Through twelve, in the Public Schools of Oregon," Special Bulletin of the Oregon School Study Council, University of Oregon, November, 1966, 9 p.

Tyler, C. Edward, "Salary Determinants For Administrative Personnel Below The Rank of Superintendent in Oregon Unified Districts Between 2,500 and 4,500 ADM," Special Bulletin of the Oregon School Study Council, University of Oregon, March, 1967, 14 p.

Goldhammer, Keith, and Tyler, C. Edward, "Legal Provisions Relating to Teacher Security," Mimeographed for presentation to the Senate Education Committee of the Oregon State Legislature, Winter, 1967, 13 p.

Tyler, C. Edward, "Team Teaching: Its Operational Definition, Its Historical Development Nationally, and a Description of Programs in the Senior High Schools of Oregon," Special Bulletin of the Oregon School Study Council, University of Oregon, June, 1967, 77 p. (Also published as a Curriculum Bulletin, University of Oregon, October, 1967.).

Saris, Ronald J. and Tyler, C. Edward, "Needs of the Non-College Bound, As Perceived by Students, Parents, and Teachers in Selected Counties of Oregon," Educational Research Report of the Bureau of Educational Research and Service, University of Oregon, Vol. II No. 2, June, 1967. 30 p.

VITA

Name: Floyd D. Urbach

Present Position:

Assistant Research Professor, Teaching Research

Education:

University of Nebraska, B.S., Science/Math, 1957
University of Wisconsin, M.S., Science, 1961
University of Nebraska, Ph.D., Education, 1966

Professional Experience:

Science Teacher, 1957-60
St. Paul High School, St. Paul, Nebraska
Instructor, Science/Media Center, 1960-66
University High School, University of Nebraska

Publications:

"The Interaction Sequence Graph Analyzing for Patterns of Teaching." Classroom Interaction Newsletter, 1969.

An Evaluation of Self-Assessment Techniques. Monograph published by the Mid-Continent Regional Educational Laboratory, co-authored with Seagren, Olson and Lux, 1969.

Analysis of Interaction Sequence Data from Techniques of Learning Process, Final Report, Mid-Continent Regional Educational Laboratory, 1968.

Trainers Manual for Inquiry Influence Training, Component No. 1, Working Paper, McREL, Co-authored with Wright, Lux and Seagren, 1968.

Trainers Manual for Inquiry Influence Training, Component No. 2, Interaction Analysis, Working Paper, McREL, Co-authored with Seagren and Lux, 1968.

Trainers Manual for Inquiry Behaviors, Component No. 3, Working Paper, McREL, Co-authored with Lux and Seagren, 1969.

VITA

Name: Edwin L. Anderson

Present Position:

Assistant Professor of Education, Oregon State University

Education:

University of Kansas, B.S., Education, 1952
University of Washington, M.Ed., Counseling and Guidance, 1959
Oregon State University, Ph.D., Education, 1970

Professional Experience:

- Teacher - Mathematics, 1952-53
  - Emperia High School, Emperia, Kansas
- Teacher - Mathematics and Coach, 1953-55
  - Monroe High School, Monroe, Washington
- Teacher - Mathematics, Boy's Counselor, Director of Guidance, Assistant Principal, 1955-68
  - Ellensburg High School, Ellensburg, Washington
- Teaching Assistant in Educational Psychology, 1968-70
  - Oregon State University, Corvallis, Oregon

VITA

Name: E. Wayne Courtney

Present Position:

Visiting Professor of Vocational Education, Oregon State University

Education:

Purdue University, B.S., Forestry, 1953
Purdue University, B.S., Agriculture, 1957
Purdue University, M.S., Education, 1958
Purdue University, Ph.D., Education, 1962
Oregon State University, Postdoctoral, Statistics, 1968

Professional Experience:

Vocational Education Teacher, 1958-59
    Harrison Township High School, Liberty, Indiana
Vocational Education Teacher, 1959-60
    Wolcott High School, Wolcott, Indiana
Instructor - Department of Education, 1960-62
    Purdue University, W. Lafayette, Indiana
Associate Professor of Psychology and Education, Director of Research, 1962-70
    Stout State University, Menomonie, Wisconsin

Publications:

Courtney, E. Wayne. Some Statistical Correlates in Industrial Graphics - A Study of Knowledge and Experience Interrelationships. Department of Psychology and Education, Stout State University, Menomonie, Wisconsin, 1963.

Courtney, E.Wayne. Attitudinal Changes in the Student Teacher. Department of Education and Psychology, Stout State University, Menomonie, Wisconsin, 1964.

Courtney, E. Wayne. Applied Research in Education. Totowa, New Jersey: Littlefield, Adams and Company, 1965.

Courtney, E. Wayne. "Research Needs in Vocational-Technical Education." The Graduate School, Stout State University, Menomonie, Wisconsin, Graduate Studies in Education, No. 1, 1966.

Courtney, E. Wayne. The Identification and Comparison of the Common Professional Training Needs and Requirements for Teachers of Vocational Education - Phase I. Office of Education, Bureau of Research, U.S. Department of Health, Education, and Welfare, March, 1967.

Courtney, E. Wayne and Larry K. Sedgwick. *Elements of Research Foundations*. Stout State University, Menomonie, Wisconsin, 1969.

Courtney, E. Wayne and Harold H. Halfin. "Compentencies of Vocational Teachers - A Factor Analysis of the Training Needs of Teachers of Occupational Education." A study conducted in cooperation with the Department of Statistics, Oregon State University, Corvallis, Oregon, 1969.

VITA

Name: F. Leon Paulson

Present Position:

Assistant Research Professor, Teaching Research

Education:

University of California, A.B., History, 1958
San Francisco State College, M.A., Psychology, 1964
Stanford University, Ph.D., Educational Psychology, 1969

Professional Experience:

Research Assistant, 1962-63
    Institute for the Study of Crime and Delinquency
Research Assistant, 1963-65
    School of Education, San Francisco State College
Research Associate, 1967-68
    Institute of Medical Sciences, Pacific Medical Center, San Francisco
Teaching Assistant, 1967-70
    Stanford University

Publications:

Levine S., Elzey, F.F., and Paulson, F.L. "Social Competence of School and Non-School Trainable Mentally Retarded." American Journal of Mental Deficiency, 1966.

Paulson, F.L. The Effects of Memory Support and Concept Difficulty in the Learning of Test Anxious Children. Ph.D. dissertation, Stanford University, 1969.

Sieber, J.E., Kameya, L.I., and Paulson, F.L. "The Relation Between Test Anxiety and Need for Memory Support in Problem Solving." Journal of Educational Psychology, Volume 61, 1970.

VITA

Name: Richard Lee Anderson

Present Position:

Assistant Professor, University of Washington

Education:

Purdue University, Ph.D., Educational Administration, 1958

Professional Experience:

High School Teacher, 3 years
Research Assistant - University Bureau of Research, 2 years
Research Specialist - U.S. Office of Education, 1 year
Specialities include Decision Making Research and Organizational Theory

Publications:

"The Selection of Administrators and Facilitators and Monitors of Dynamics Process." College of Education Records, November, 1969.

"Utilization of Selection Criteria for Screening Applicants for Administrative Training for the Production of Patterns of Crude Decisional Behavior at the End of the Training Period." American Education Research Association Abstracts, 1970.

"Predicters of Predecisional Behavior of School Administrators." American Educational Research Association Abstracts, 1970.

VITA

Name: Cecil Clark

Present Position:

Associate Professor, University of Washington

Education:

Stanford University, Ph.D., Educational Psychology, 1965

Professional Experience:

Assistant Professor, University of Washington, 3 years
Research Assistant, Stanford University, 5 years
Specialties include Behavioral Objectives and Learning Theory
Research Methodology

Publications:

"Selection of Defining Properties in Concept Payment." *Journal of Educational Psychology*, 59:328-333, Co-authored with S.J. McDonald, 1968.

"Similarity Between Children and Adults Adjective Responses to Noun Stimuli." *Journal of Verbal Learning and Verbal Behavior*, 7:705-706, 1968.

"Competition For Grades and Graduate Student Performance." *Journal of Educational Research*, 62:351-354, 1969.

VITA

<ins>Name</ins>: Ambrose A. Clegg

<ins>Present Position</ins>:

Associate Professor, University of Washington

Education:

University of North Carolina, Ph.D., Curriculum and Instruction, 1963

<ins>Professional Experience</ins>:

University Professor, 7 years
Director of Research, 1 year
Teaching Assistant, 2 years
Elementary and Secondary School Teacher, 6 years

<ins>Publications</ins>:

"Teachers' Questions in Primary Reading: A Misleading Analysis." <ins>Reading Teacher</ins>, 23:618-620, 1970.

"Increasing the Cognitive Level of Classroom Questions and Social Studies: An Application of Bloom's Taxonomy." <ins>Research of Education</ins>, 5 (4):93, Co-authored with George T. Farley, 1970.

"The Dilema of History: Product or Processes." Reprinted in <ins>Readings of Elementary Social Studies</ins>, Second Edition, (McLendon, Allyn, Joyce and Lee editors), Co-authored with Carl E. Schomburg, Allyn and Bacon, 1970.

VITA

Name: Robert G. Cope

Present Position:

Associate Professor, University of Washington

Education:

University of Michigan, Ph.D., Higher Education and Psychology, 1967

Professional Experience:

Secondary School Teacher, 3 years
Conference Coordinator at University level, 2 years
Research Assistant, 3 years
Director of Institutional Studies, 3 years
Specialties include Higher Education Studies and Educational Psychology

Publications:

"Non-response in Survey Research as a Function of Psychological Characteristics and Time of Response." Journal of Experimental Education, 36 (3):32-35, Spring, 1968.

"Limitations of Attrition Rate and Causes Given for Dropping Out of College." Journal of College Students Personnel, 9 (6):386-392, November, 1968.

"Simulation Models Should Replace Formulas for State Budget Requests." College and University Business, 46 (3)30-34, March, 1969.

VITA

Name: Thomas C. Lovitt

Present Position:

Associate Professor, University of Washington

Education:

University of Kansas, Ed.D., Learning Disabilities, 1966

Professional Experience:

Teacher in the public schools, 2 years
Lecturer, 2 years
Administrative Assistant, 1 year
University Professor, 4 years
Specialties include Learning Disabilities, Special Education and Learning Theory

Publications:

"Free Operant Preference for One of Two Stories: A Methodological Note." Journal of Educational Psychology, 58:84-87, 1967.

"Effects of Manipulating an Antecedant Event on Mathematics Response Rate." Journal of Applied Behavior Analysis, 1:329-333, 1969.

"Operant Conditioning Techniques for Children with Learning Disabilities." pp. 183-190, Management of the Child with Learning Disabilities: An Interdisciplinary Challenge, John I. Arena, Editor, Pittsburg: Association for Children with Learning Disabilities, 1969.

VITA

Name: Percy B. Peckham

Present Position:

Assistant Professor, University of Washington

Education:

University of Colorado, Ph.D., Research and Statistics, 1968

Professional Experience:

Secondary School Teacher, 10 years
Assistant Principal, 2 years
Research Assistant, Denver Public Schools, 2 years
Coordinator of Research Services, Denver Public Schools, 2 years
Specialties include Research Methodology, Statistics and Learning

Publications:

"The Experimental Unit in Statistical Analysis: Comparative Experience with Impact Group." Research Paper No. 28, Boulder, Colorado, Laboratory of Educational Research, Co-authored with G. Glass and Kay Hopkins, 1969.

VITA

Name: Gilbert Sax

Present Position:

Assistant Professor, University of Washington

Education:

University of Southern California, Ph.D., Educational Psychology, 1958

Professional Experience:

Secondary School Teacher, 2 years
Research Assistant, 2 years
Specialties include Measurement, Statistics, Research Methodology and Learning

Publications:

Empirical Foundations of Educational Research. Englewood Cliffs: Prentice Hall, Inc.

Construction and Analysis of Educational and Psychological Tests. Madison, Wisconsin, College Printing Co., Revised Edition, 1968.

"The Effects of Differing Instructions and Differing Formulas on the Liability and Validity." Educational and Psychological Measurements, 28(4):1127-1136, Co-authored with L. Collect, Winter, 1968.

VITA

Name: Gregory P. Maltby

Present Position:

Assistant Professor, University of Oregon

Education:

Illinois State University, B.S., 1955
Illinois State University, M.S., 1956
University of Illinois, Ed.D., 1966

Professional Experience:

Senior High Teacher, History and Government, 5 years
Administrative Intern, Senior High School, 1 year
Administrative Assistant, Senior High School, 3 years
Assistant Professor of Education, 4 years

Publications:

"A Comparison of the Academic Achievement of Two Groups of Sophomores." Illinois School Research, Vol. 1, No. 2, February, 1965.

"A Summer Program for the Training of Undergraduates in Educational Research." Illinois School Research, Vol. 4, No. 1, Co-authored with Daniel Longmeyer, November, 1967.

The Loss of Experienced Teachers in Oregon Through Retirement. Eugene, Oregon: Bureau of Educational Research, University of Oregon, March, 1967.

APPENDIX L

BIBLIOGRAPHY

Baxter, B. (Chm.) Evaluative Research: Strategies and Methods. Symposium for Research, Washington, D. C. January 8-9, 1970

Bennis, W. C. and Slater, Philip E. The Temporary Society. New York: Harper and Row, 1968.

Bolster, Arthur S., Jr. Book Review of "The Teaching Hospital: Evolution and Contemporary Issues" by John H. Knowles, M. D. (Ed.) The Harvard Educational Review. 37 (2): 273-281; Spring 1967.

Buswell, Guy T., et al, Training for Educational Research. Cooperative Research Project No. 51074. Berkeley, California: Center for the Study of Higher Education, University of California, 1966.

Clark, David L. and Hopkins, John E. A Report on Educational Research, Development and Diffusion Manpower, 1964-1972. Bloomington, Indiana; Indiana University Research Foundation, 1969.

Crutchfield, R. S., and Covington, M. V. The Productive Thinking Program. Berkeley, California; Educational Innovation, 1969.

Fletcher, Jerry L. and Williamson, John N. The School as a Center for Educational Change. Portland, Oregon: The John Adams High School, 1969.

Gideonse, Hendrik D. Educational Research and Development in the United States. A report of the Bureau of Research, U. S. Office of Education, prepared for the Organization for Economic Cooperation and Development, 1969.

Griessman, B. E. "An Approach to Evaluating Comprehensive Social Projects." Educational Technology, 9: 16-19; February 1969.

Guba, E. G. and Stufflebeam, D. L. Strategies for the Institutionalization of the CIPP Evaluation Model. An address delivered at the Eleventh Annual Phi Delta Kappa Symposium on Educational Research. Columbus, Ohio: Ohio State University, Evaluation Center, June 1970.

Hayes, S. P., Jr. Evaluating Development Projects. Belgium, United Nations Educational Scientific and Cultural Organization, 1959.

Hemphill, J. K. "Dimensions of Executive Positions: A Study of the Basic Characteristics of the Positions of Ninety-Three Business Executives." Bureau of Business Research Monograph, Number 98, 1967.

Hopkins, John E. Proposed Objectives and Programs for the Office of Education Training Program. Second revision, 1969. (Mimeographed)

Horvat, J. J. "The Training of Educational Developers." Viewpoints, 46 (2): 61-68; March 1970.

Knowles, John H., M. D. (Ed.) The Teaching Hospital: Evolution and Comtemporary Issues. Cambridge, Massachusetts: Harvard University Press. 1966.

McIntosh, R. Gordon. A Comparative Study of Clinical Training. Unpublished Doctoral Dissertation, Harvard University. 1969.

Michael, W. B. A Critique of the Methodology of Evaluation in the Phi Delta Kappa Book on Evaluation. An address delivered at the Eleventh Annual Phi Delta Kappa Symposium on Educational Research. Columbus, Ohio: Ohio State University, Evaluation Center, June 1970.

Nelson, F. G. Models for Evaluation: An Introduction. Monmouth, Oregon: Teaching Research, 1970.

Owens, T. R. "Suggested Tasks and Roles of Evaluation Specialists in Education." Educational Technology. 8: 4-10, November 1968.

Parker, John L. Personnel Training at John Adams High School. Bulletin #38, College of Education, University of Oregon, January 1970.

Paulson, C. F. (Ed.) A Strategy for Evaluation Design. Monmouth, Oregon. Teaching Research, 1970.

Paulson, C. F. Evaluation of Instructional Systems, Monmouth, Oregon: Teaching Research, 1969.

Provus, M. "Evaluation of Ongoing Programs in the Public School System." Educational Evaluation: New Roles, New Means. R. Tyler, (Ed.) Chicago: University of Chicago Press, 1969, 242-283.

Schalock, H. Del. A Competency Based, Field Centered, Personalized and Systematic Model for Elementary Teacher Education. Monmouth, Oregon: Oregon College of Education and Teaching Research, 1970.

Stake, R. E. "The Countenance of Educational Evaluation." Teachers' College Record. 68 (7): 523-540; 1967.

Stufflebeam, D. L. "An Introduction." Educational Evaluation and Decision Making. Columbus, Ohio: Ohio State University, Evaluation Center, June 1970.

Stufflebeam, D. L. Evaluation as Enlightenment for Decision-Making. Columbus, Ohio: Ohio State University, Evaluation Center, 1968.

Sundberg, Norman D. "Systematic Learning in Natural Settings." Unpublished Address to the Conference, Instructional Innovations in Undergraduate Instruction. Eugene, Oregon, July 24, 1969.

Twelker, P. A. "Designing Simulation Systems." Educational Technology, 9: 64-70; October 1969.

Wallen, John L. Charting the Decision Making Structure of an Organization. Program Report: Improving Teaching Competencies, Northwest Regional Educational Laboratory, Portland, Oregon, May 1970.

Weislogel, M. H., Johns, J. and Rigby, M. K. Procedures for Evaluating Research Personnel with a Performance Record of Critical Incidents. A report submitted to the American Institute for Research, June 1950.

ED 059165

FINAL REPORT
Project No. 0-9037
Grant No. OEG-0-70-4977

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Budget
(Volume 4 of 4)

PROPOSAL FOR THE DESIGN OF A NEW PATTERN FOR TRAINING RESEARCH, DEVELOPMENT, DEMONSTRATION/ DISSEMINATION, AND EVALUATION PERSONNEL IN EDUCATION

Dr. Jerry L. Fletcher
Teaching Research Division
Oregon State System of Higher Education
Monmouth, Oregon 97361

December 18, 1970

U. S. Department of
Health, Education, and Welfare
Office of Education
Research Training Branch
National Center for Educational Research and Development

SP005526

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PREFACE

The budget document is organized so that the reader, guided by the Table of Contents, may read progressively from general summaries to more specific details as desired.

To assist in referencing budget figures to events, supporting notations and documents have been included to identify and describe such items as event tasks, performance timelines, consortium members responsible for the work of the task, consortium members housing the work of the task and consortium members contributing resources to the task.

The request to break-out the budget totals in two time periods, February 1, 1971, to January 31, 1972, and February 1, 1972, to June 30, 1972, has been difficult to provide. This project does not break naturally at the end of the first twelve months.

Consequently, we have provided eighteen month budgets, and have estimated the relative proportion of those totals which would be spent in the first twelve months, and the subsequent six.

The eximate of costs for the first twelve months, and the following six is provided in the following chart.

Budget Summary First Eighteen Months
by Divisions and Divided by First
Twelve Months and Succeeding Six Months

Divisions	First Twelve Months February 1, 1971-January 30, 1972	Succeeding Six Months February 1, 1972-July 30, 1972	Total Eighteen Months February 1, 1971-July 30, 1972
Coordinating Unit	$ 139,007	$ 66,852	$ 205,859
Event I	6,414	464	6,878
Event II	93,704	34,114	127,818
Event III	76,667	-0-	76,667
Event IV	78,516	74,331	152,847
Event V	1,884	988	2,872
Total	$ 396,192	$ 176,749	$572,941

SECTION I - Summary Budgets

First Eighteen Months

Budget Summary of Categories Displaying Divisions 1

Budget Summary of Divisions Displaying Program, Training and Materials Development Categories 2

Year Two

Minimum Budget Projection by Division 3

Maximum Budget Projection by Division 4

Year Three

Minimum Budget Projection by Division 5

Maximum Budget Projection by Division 6

Budget Summary by Categories Displaying Divisions
(18 month budget)
February 1, 1971 - July 30, 1972

	Budget Categories	Budget Divisions						
		Coord. Unit	Event I	Event II	Event III	Event IV	Event V	Total
1.	Personnel compensation	$145,740	$2,400	$ 81,260	$59,675	$126,400	$ -0-	$415,475
2.	Transportation and per diem	14,260	2,018	6,840	15,530	11,525	1,000	51,173
3.	Rent and utilities	11,451	100	500	-0-	-0-	-0-	12,051
4.	Communications	3,351	-0-	500	1,000	-0-	1,030	5,881
5.	Printing and reproduction	1,000	400	800	600	100	480	3,380
6.	Other services	8,800	1,250	7,050	7,050	3,100	-0-	27,250
7.	Supplies	1,500	200	21,400	3,800	400	150	27,450
8.	Equipment	4,508	-0-	-0-	-0-	-0-	-0-	4,508
9.	Indirect costs (8%)	15,249	510	9,468	7,012	11,322	212	43,773
	Total	$205,859	$6,878	$127,818	$94,667	$152,847	$2,872	($590,941)
	Adjusted total*	$205,859	$6,878	$127,818	*$76,667	$152,847	$2,872	*$572,941

*See Event III budget
for explanation of
reduction of $18,000

Budget Summary by Divisions Displaying Program, Training and Materials Development Categories*
(18 month budget)
February 1, 1971 - July 30, 1972

Budget Divisions	Categories		
	Program	Training	Materials Development
Coordinating Unit ($205,859)	$ 68,619 (1/3 total budget)	$137,240 (2/3 total budget)	-0-
Event I (6,878)	5,951 (includes development tasks #1, 2, 3)	927 (includes continuing task #3)	-0-
Event II (127,818	27,929 (includes development tasks #1, 2, 3, 4)	19,807 (includes continuing tasks #1 & 2)	$80,082 (includes development tasks #5 & 6
Event III (76,667	-0-	65,613 (includes continuing tasks #1, 2, 3, 5, 6, 7, 8, 9)	11,054 (includes development tasks #1 & 2 and continuing task #4)
Event IV (152,847)	3,429 (includes development tasks #1, 2, 3, 4)	149,418 (includes continuing tasks #1, 2, 3)	-0-
Event V (2,872)	896 (includes development tasks #1 & 2)	1,976 (includes continuing tasks #1 & 2)	-0-
Total ($572,941)	$106,824	$374,981	$91,136

*See event budgets for title of tasks and detailed financial description

Minimum Budget Projection by Division*
Operating Year Two
(12 month budget)
August 1, 1972 - July 30, 1973

EVENT I: Trainee recruitment		$ 1,522
Development (program and materials) costs	$ 595	
Training costs	927	
	1,522	
EVENT II: The induction process		30,608
Development (program and materials) costs	10,801	
Training costs	19,807	
	30,608	
EVENT III: The trial projects		132,331
Development (program and materials) costs	1,105	
Training costs	131,226	
	132,331	
EVENT IV: Actual project assignments		167,461
Development (program and materials) costs	343	
Training costs	167,118	
	167,461	
EVENT V: Placement process		2,066
Development (program and materials) costs	90	
Training costs	1,976	
	2,066	
COORDINATING UNIT(S)		107,450
Development (program and materials) costs	686	
Training costs	106,764	
	107,450	
TOTAL		$441,438

*Assumptions:
(1) 30 trainees
(2) 3 training sites
(3) development work reduced 90%
(4) coordinating units' functions decentralized 50%
(5) 6 trial projects
(6) between 6 and 9 training projects
(7) addition of 2 staff trainers at site level

Maximum Budget Projection by Division*
Operating Year Two
(12 month budget)
August 1, 1972 - July 30, 1973

EVENT I: Trainee recruitment		$ 1,522
Development (program and materials) costs	$ 595	
Training costs	927	
	1,522	
EVENT II: The induction process		30,608
Development (program and materials) costs	10,801	
Training costs	19,807	
	30,608	
EVENT III: The trial projects		197,944
Development (program and materials) costs	1,105	
Training costs	196,839	
	197,944	
EVENT IV: Actual project assignments		278,873
Development (program and materials) costs	343	
Training costs	278,530	
	278,873	
EVENT V: Placement process		2,066
Development (program and materials) costs	90	
Training costs	1,976	
	2,066	
COORDINATING UNIT(S)		107,450
Development (program and materials) costs	686	
Training costs	106,764	
	107,450	
TOTAL		$618,463

*Assumptions:
(1) 50 trainees
(2) 5 training sites
(3) development work reduced 90%
(4) coordinating units' functions decentralized 50%
(5) 9 trial projects
(6) between 15 and 20 training projects
(7) addition of 2 staff trainers at site level

Minimum Budget Projection by Division*
Operating Year Three
(12 month budget)
August 1, 1973 - July 30, 1974

EVENT I:	Trainee recruitment	$ 927
EVENT II:	The induction process	19,807
EVENT III:	The trial projects (Note: It should be possible by operating year three to substantially reduce the cost of this event)	196,839
EVENT IV:	Actual project assignments	175,968
EVENT V:	Placement process	1,976
COORDINATING UNIT(S):		101,680
TOTAL		$497,197

*Assumptions:
(1) 45 trainees
(2) 3 training sites
(3) development work eliminated
(4) coordinating units' functions decentralized 90%
(5) 9 trial projects
(6) 9 training projects
(7) addition of 1 staff trainer at site level

Maximum Budget Projection by Division*
Operating Year Three
(12 month budget)
August 1, 1973 - July 30, 1974

EVENT I:	Trainee recruitment	$ 927
EVENT II:	The induction process	19,807
EVENT III:	The trial projects (Note: It should be possible by operating year three to substantially reduce the cost of this event)	459,291
EVENT IV:	Actual project assignments	410,592
EVENT V:	Placement process	1,976
COORDINATING UNIT(S)		101,680
TOTAL		$994,273

*Assumptions:
(1) 105 trainees
(2) 7 training sites
(3) development work eliminated
(4) coordinating units' functions decentralized 90%
(5) 21 trial projects
(6) 35 training projects

SECTION II - Summary Budgets (First Eighteen Months)

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Budget Summary - by Event 11

Budget Summary by Categories Displaying Divisions

(18 month budget)
February 1, 1971 - July 30, 1972

	Budget Categories	Budget Divisions						
		Coord. Unit	Event I	Event II	Event III	Event IV	Event V	Total
1.	Personnel compensation	$145,740	$2,400	$ 81,260	$59,675	$126,400	$ -0-	$415,475
2.	Transportation and per diem	14,260	2,018	6,840	15,530	11,525	1,000	51,173
3.	Rent and utilities	11,451	100	500	-0-	-0-	-0-	12,051
4.	Communications	3,351	-0-	500	1,000	-0-	1,030	5,881
5.	Printing and reproduction	1,000	400	800	600	100	480	3,380
6.	Other services	8,800	1,250	7,050	7,050	3,100	-0-	27,250
7.	Supplies	1,500	200	21,400	3,800	400	150	27,450
8.	Equipment	4,508	-0-	-0-	-0-	-0-	-0-	4,508
9.	Indirect costs (8%)	15,249	510	9,468	7,012	11,322	212	43,773
	Total	$205,859	$6,878	$127,818	$94,667	$152,847	$2,872	($590,941)
	Adjusted total*	$205,859	$6,878	$127,818	*$76,667	$152,847	$2,872	*$572,941

*See Event III budget for explanation of reduction of $18,000

Budget Summary by Divisions Displaying Program, Training and Materials Development Categories*
(18 month budget)
February 1, 1971 - July 30, 1972

Budget Divisions	Categories		
	Program	Training	Materials Development
Coordinating Unit ($205,859)	$ 68,619 (1/3 total budget)	$137,240 (2/3 total budget)	-0-
Event I (6,878)	5,951 (includes development tasks #1, 2, 3)	927 (includes continuing task #3)	-0-
Event II (127,818	27,929 (includes development tasks #1, 2, 3, 4)	19,807 (includes continuing tasks #1 & 2)	$80,082 (includes development tasks #5 & 6
Event III (76,667	-0-	65,613 (includes continuing tasks #1, 2, 3, 5, 6, 7, 8, 9)	11,054 (includes development tasks #1 & 2 and continuing task #4)
Event IV (152,847)	3,429 (includes development tasks #1, 2, 3, 4)	149,418 (includes continuing tasks #1, 2, 3)	-0-
Event V (2,872)	896 (includes development tasks #1 & 2)	1,976 (includes continuing tasks #1 & 2)	-0-
Total ($572,941)	$106,824	$374,981	$91,136

*See event budgets for title of tasks and detailed financial description

Training Consortium Coordinating Unit
(18 month budget)
February 1971 -- August 1972

1. Personnel Compensation		
a. Salary and wages		
(1) 1 training program director (annual base, $22,000)	$ 33,000	
(2) 2 assistant directors (annual base, $19,000 each)	57,000	
(3) 3 clerical (annual base, $7,200 each)	32,400	
(4) 3 training specialists on retainer (10% of annual base, $20,000 each)	6,000	
	$128,400	$128,400
b. Personnel benefits (10% of above)	$ 12,840	$ 12,840
c. Consultant fees 3 training consultants for estimated 15 days each (45 days @ $100 per day)	$ 4,500	$ 4,500
Total Compensation		$145,740
2. Transportation and Per Diem		
a. Staff transportation (10¢ per mile) site visits; two conference trips to Washington, D. C., etc.	$ 4,000	
Staff per diem ($25 per full day)	1,500	
	$ 5,500	$ 5,500
b. (1) Consultants' (3) transportation (10¢ per mile) site visits	$ 1,000	
Consultant per diem ($25 per full day)	500	
(2) Governing Council transportation (10¢ per mile) 18 one-day meetings - 200 miles, 8 members	2,880	
Consultant per diem ($10 per day x 8 x 18)	1,440	
(3) IRAC (7 members) transportation 18 one-day meetings - 1,800 miles @ 10¢ per mile	180	
Consultant per diem ($10 per day x 18 x 7)	1,260	
(4) Training specialists (3) transportation @ 10¢ per mile	1,000	
Consultant per diem ($25 per full day)	500	
	$ 8,760	$ 8,760
Total Transportation and Per Diem		$ 14,260
3. Rent and Utilities		
a. (1) 3 professional offices at 150 sq. ft. per person (450 sq. ft.) @ $5 per sq. ft. annually	$ 3,375	
(2) 3 secretarial offices at 100 sq. ft. per person (300 sq. ft.) @ $5 per sq. ft. annually	3,250	

(3) 1 conference meeting space (300 sq. ft.) @ $5 per sq. ft. annually	$ 3,250	
(4) Workroom space at 105 sq. ft. per 3 professionals @ $5 per sq. ft. annually	788	
(5) Filing/storage space at 105 sq. ft. per 3 professionals @ $5 per sq. ft. annually	788	
	$ 11,451	$ 11,451
b. Utilities (included in rent)	-0-	-0-
Total Rent and Utilities		$ 11,451
4. Communications		
a. Telephone and telegraph		
(1) Phone installation and basic rate for 3 professionals at $75 each annually	$ 338	
(2) Extension phone installation and basic rate for 3 secretaries at $25 each annually	113	
(3) Long distance charges	2,000	
	$ 2,451	$ 2,451
b. Postage ($200 per person, annually x 3)	$ 900	$ 900
Total Communications		$ 3,351
5. Printing and Reproduction	$ 1,000	$ 1,000
		$ 1,000
6. Other Services		
a. Equipment rental (projectors, tape recorders, etc.)	$ 800	$ 800
b. Data processing	$ 8,000	$ 8,000
Total Other Services		$ 8,800
7. Supplies (office, program, library)	$ 1,500	$ 1,500
		$ 1,500
8. Equipment		
3 secretarial desks @ $150	$ 450	
3 steno chairs @ $76	228	
3 desks @ $200	600	
3 executive chairs @ $120	360	
3 typewriters @ $468	1,404	
1 dictaphone @ $475	475	
1 transcriber @ $475	475	
3 files @ $72	216	
Misc accessories	300	
	$ 4,508	$ 4,508
Total Equipment		$ 4,508
9. Indirect Costs		
8% of direct costs ($190,610)		$ 15,249
Total Budget		$205,859

EVENT I: TRAINEE RECRUITMENT

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1. Personnel Comp.	2. Trans. & Per Diem	3. Rent & Utilities	4. Communications	5. Print. & Reproduct.	6. Other Services	7. Supplies	8. Equipment	9. Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1. Brochure	2	TR	NWREL	*	*	**	*	$ 400	$ 600	**	**	$ 80	$ 1,080
2. Preliminary Interview Form	1	TR	TR	*(BALANCE) $ 1,400	$ 410	*	*	-0-	100	*	-0-	153	2,063
3. Slide Tape	3	TR	NWREL	*(BALANCE) 1,000	850	**	*	-0-	550	200	-0-	208	2,808
CONTINUING TASKS													($5,951)
1. Distribution of Brochure & Personnel Cont.)	8	TR	ALL	*	*	*	*	-0-	-0-	-0-	-0-	-0-	-0-
2. Initial Screening	2	TR	ALL	*	-0-	*	*	-0-	-0-	*	-0-	-0-	-0-
3. Initial Conf. (With Planning Time)	2	TR TR	TR	*	*(BALANCE) 758	*(BALANCE) 100	*	*	-0-	*	**	69	927
4. Follow-up Dossier Comp. on Trainee	2	TR	TR	*	*	*	*	-0-	-0-	*	*	-0-	-0-
5. Interim Selec. of Trainees & Alternates	2	ALL	NWREL	*	*	*	*	*	-0-	*	-0-	-0-	-0-
TOTAL				$ 2,400	$ 2,018	$ 100	$ -0-	$ 400	$ 1,250	$ 200	$ -0-	$ 510	($ 927) $ 6,878

These codes and notations are applicable to subsequent event budgets but are not duplicated again on succeeding pages.

Consortium Participants

PROGRAM: Consortium Program Funds
NWREL: Northwest Regional Educational Laboratory
OSDE: Oregon State Department of Education
OSU: Oregon State University

PPS: Portland Public Schools
TR: Teaching Research
UofO: University of Oregon
UofW: University of Washington
ALL: All Consortium Members

* It is anticipated that this portion of the task and its cost will be performed and absorbed by the training coordinating center basic budget.

** It is anticipated that this cost will be donated by the consortium member designated as "location of work".

EVENT II: THE INDUCTION PROCESS

(Screening of 25 Applicants to 15 Initial Trainees)

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1.Competency Profile Instrument	6	TR	TR	*(BALANCE) $ 7,360	*	*	*	-0-	*	*	*	$ 589	$ 7,949
2.Field Survey to Derive Model Comp. Profile	10	TR	TR	*(BALANCE) 8,000	*(BALANCE) $ 400	*	*	-0-	-0-	*	-0-	672	9,072
3.Profile Validation	4	TR	TR	*(BALANCE) 2,000	*	*	*	$ 300	$ 5,750	$ 250	-0-	664	8,964
4.Slide/Tape Refinement	4	TR	NWREL	*(BALANCE) 1,000	-0-	**	-0-	-0-	800	-0-	**	144	1,944
5.Instructional Materials For Training Staff	4	ALL	TR NWREL	*(BALANCE) 1,500	350	*	*	500	-0-	650	-0-	240	3,240
6.Instructional Materials For Trainees	60	TR	TR	*(BALANCE) 50,000	650	*	$ 500	-0-	-0-	20,000	-0-	5,692	76,842
CONTINUING TASKS													(108,011)
1.Selection and Training of Training Staff	8	ALL	TR	*(BALANCE) 2,000	*(BALANCE) 600	*	*	*	-0-	*	-0-	208	2,808
2.Induction Process	1	TR	TR	*(BALANCE) 9,400	*(BALANCE) 4,840	*(BALANCE) 500	*	-0-	500	500	-0-	1,259	16,999
3.Trainee Selection	1	ALL	TR	*	*	*	*	-0-	-0-	*	-0-	-0-	(19,807) -0-
TOTAL				$81,260	$ 6,840	$ 500	$ 500	$ 800	$ 7,050	$21,400	-0-	$ 9,468	$127,818

EVENT III: THE TRIAL PROJECT(S)

TASKS	Initial Time In Weeks	Resp. For Work	Location of work	1 Personnel Comp.	2. Trans. & Per Diem	3. Rent & Utilities	4. Communications	5. Print. & Reproduct.	6. Other Services	7. Supplies	8. Equipment	9. Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1. Field Problems Seminar Development	3	TR	PPS	*(BALANCE) $ 3,625	$ 200	**	*	-0-	-0-	$ 500	-0-	$ 346	$ 4,671
2. Conference and Supervision Training Mat.	6	TR	TR	*(BALANCE) 3,000	410	*	*	200	2,000	300	-0-	473	6,383 ($11,054)
CONTINUING TASKS													
1. Selec. (or Crea.) Staff. & Plann. of the Trial Proj.	18	TR	NWREL PPS TR	*	384	**	500	-0-	1,500	600	-0-	239	3,223
2. Site Arrangements	10	TR	NWREL PPS TR	*(BALANCE) 600	640	*	500	-0-	1,250	300	-0-	263	3,553
3. Sche. Seminars, Conf., Staff Meetings	1	TR	TR	*	-0-	*	-0-	-0-	-0-	*	-0-	-0-	-0-
4. Content Seminar Planning	4	TR	TR	*(BALANCE) 2,000	*(BALANCE) 500	*	*	-0-	500	500	-0-	280	3,780
5. Content Seminar Operation	5	TR	NWREL PPS TR	*(BALANCE) 6,000	480	**	*	200	150	*	-0-	546	7,376
6. Field Problems Seminar Operation	5	TR	NWREL PPS TR	*(BALANCE) 2,500	200	**	*	200	150	*	-0-	244	3,294
7. Conf./Supervision Training and Operation	6	TR	NWREL PPS TR	*(BALANCE) 7,650	-0-	**	*	-0-	-0-	300	-0-	636	8,586
8. Assessing of Competence in Context	8	TR	NWREL PPS TR	*(BALANCE) 4,300	216	**	*	-0-	1,000	1,000	-0-	521	7,037
9. Trial Project Operation[1]	5	TR	NWREL PPS TR	*(BALANCE) 30,000	*(BALANCE) 12,500	**	*	-0-	500	300	**	3,464	(28,764) $46,764
TOTAL				$59,675	$15,530	-0-	$1,000	$600	$7,050	$3,800	-0-	$ 7,012	($83,613) ($65,613) $94,667 ($76,667)

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[1] The three trial projects will be actual projects. The groups desiring to have the projects done will each contribute $6,000 for the work which the project will accomplish. The Training Consortium will contribute approximately $9,000 per trial project. The group agreeing to allow its contracted project to be a trial project will receive a $15,000 project for its $6,000. This income will reduce the cost of trial project operation by $18,000 thus reducing the total for Event III from $94,667 to $76,667. This adjusted total is shown in the budget summary.

EVENT IV: ACTUAL PROJECT ASSIGNMENT(S)

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1.Procedure For Describing Proj.in Detail	4	TR	OSU TR	*	*	*	*	$ 100	-0-	$ 100	*	$ 16	$ 216
2.Maximum Fit - Computer Matching Program	4	TR	OSU	*	-0-	**	*	*	$ 500	*	-0-	40	540
3.Orientation Program For Each Site	3	TR	NWREL	*(BALANCE) $ 1,000	$ 275	**	*	-0-	900	300	-0-	198	2,673
4.Proj. Site Arrangements (Per Site)	2	TR	NWREL PPS TR	*	*	*	*	*	-0-	*	-0-	-0-	-0-
CONTINUING TASKS													($3,429)
1.Assembly of Detailed Info. on Each Tr. Proj.	6	TR	NWREL PPS TR	*	*	*	*	*	-0-	*	-0-	-0-	-0-
2.Matching of Trainees to Avail.Exper.	6	TR	TR	*	*	*	*	*	700	-0-	-0-	56	756
3.Project Site Operation	48	ALL	NWREL PPS TR	*(BALANCE) $125,400	*(BALANCE) 11,250	**	* **	*	1,000	* **	* **	$11,012	$148,662
TOTAL				$126,400	11,525	-0-	-0-	$ 100	$3,100	$ 400	-0-	$11,322	($149,418) $152,847

EVENT V: PLACEMENT PROCESS

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1.Certification Standards (Program)	4	TR	TR	*	*	*	*	$ 330	-0-	*	-0-	$ 26	$ 356
2.Certification Standards (Academic)	8	TR	OSU UW; UO STATE D.	* **	$ 500	* **	* **	-0-	-0-	* **	-0-	40	540
													($896)
CONTINUING TASKS													
1.Job Market Survey	12	TR	STATE BOARD	* **	*	* **	$ 400	*	-0-	$ 50	* **	36	486
2.Placement of Certified Trainees	48	ALL	TR UW; OSU UO	* **	500	*	$ 630	150	-0-	100	-0-	110	1,490
													($1,976)
TOTAL				*	$ 1,000	*	$ 1,030	$ 480	-0-	$ 150	-0-	$ 212	$ 2,872

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EVENT I: TRAINEE RECRUITMENT

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1.Brochure	2	TR	NWREL	*	*	**	*	$ 400	$ 600	**	**	$ 80	$ 1,080
2.Preliminary Interview Form	1	TR	TR	*(BALANCE) $ 1,400	$ 410	*	*	-0-	100	*	-0-	153	2,063
3.Slide Tape	3	TR	NWREL	*(BALANCE) 1,000	850	**	*	-0-	550	200	-0-	208	2,808
CONTINUING TASKS													($5,951)
1.Distribution of Brochure & Personnel Cont.)	8	TR	ALL	*	*	*	*	-0-	-0-	-0-	-0-	-0-	-0-
2.Initial Screening	2	TR	ALL	*	-0-	*	*	-0-	-0-	*	-0-	-0-	-0-
3.Initial Conf. (With Planning Time)	2	TR TR	TR	*	*(BALANCE) 758	*(BALANCE) 100	*	*	-0-	*	**	69	927
4.Follow-up Dossier Comp. on Trainee	2	TR	TR	*	*	*	*	-0-	-0-	*	*	-0-	-0-
5.Interim Selec. of Trainees & Alternates	2	ALL	NWREL	*	*	*	*	*	-0-	*	-0-	-0-	-0-
TOTAL				$ 2,400	$ 2,018	$ 100	$ -0-	$ 400	$ 1,250	$ 200	$ -0-	$ 510	($ 927) $ 6,878

These codes and notations are applicable to subsequent event budgets but are not duplicated again on succeeding pages.

Consortium Participants

PROGRAM: Consortium Program Funds
NWREL: Northwest Regional Educational Laboratory
OSDE: Oregon State Department of Education
OSU: Oregon State University
PPS: Portland Public Schools
TR: Teaching Research
UofO: University of Oregon
UofW: University of Washington
ALL: All Consortium Members

* It is anticipated that this portion of the task and its cost will be performed and absorbed by the training coordinating center basic budget.

** It is anticipated that this cost will be donated by the consortium member designated as "location of work".

Task Descriptions To Accompany Timeline Chart
Event I - Trainee Recruitment

Development Task 1: "Brochure"

A summary description of the training program will be written. Additional information such as goals of the program, benefits to be realized by trainees, those eligible to apply, deadline dates for application and members of the consortium will be provided. An application format will be developed containing specific information about the candidate for screening purposes. The program staff in consultation with a printing agency will develop and produce the brochure.

Development Task 2: "Preliminary Interview Form"

An interview form will be developed by program staff for purposes of gathering additional data regarding each applicant. The information will consist of:

1. Present experience
2. Professional aspirations
3. Anticipated future job
4. Alternative possible jobs

Interviewers will receive training in the use of the interview form, probing techniques, data checking and recording.

Development Task 3: "Slide Tape Presentation"

A profile of tasks performed by individuals holding positions in development and evaluation will be designed. Extensive use will be made of the materials produced by the RDD&E study conducted by TR. A format for presentation of the profiles will be designed with assistance from an audiovisual consultant. A slide tape will be produced for each area (development and evaluation) by an audiovisual production agency.

Continuing Task 1: "Distribution of Brochure (And Personal Contact)"

A list of agencies will be generated (by the program staff with assistance from the Governing Council) that have close contact with individuals possessing those qualifications essential for consideration as a trainee. Brochures will be mailed to key staff members for distribution within the agency. Personal contact will be made with a number of key staff members to discuss program and candidate referrals.

Continuing Task 2: "Initial Screening"

Each application will be classified according to area of interest (development or evaluation) and ranked within classification according to qualifications as indicated by information contained in the application and personal references. Some initial "weeding out" of obviously misplaced or inappropriate candidates will take place.

Continuing Task 3: "Initial Conference (With Planning Time)"

The initial conference program will be designed by the program staff following the format:

Introductions
Program design and procedures
Small group discussions
Luncheon
Individual interviews

A comprehensive description of the training model will be prepared for oral presentation. Procedures for presenting the slide-tape review and supplementary materials for discussion will be developed. Staff members will be assigned to specific responsibilities within the program. Facilities will be scheduled for small group discussions and individual interviews.

Continuing Task 4: "Followup Dossier Completion on Trainee"

A followup of all references of each candidate will be made through personal contact. A folder containing the candidate's application, transcript of training, rough profile of experiences and aspirations, reference narratives and the interviewer's assessment of candidate's potential will be compiled.

Continuing Task 5: "Interim Selecting of Trainees and Alternates"

The program staff will complete a summary assessment of each candidate and present it to the total group. Each candidate will be classified according to development or evaluation and ranked as to training potential. Twenty-five candidates will be selected as interim trainees and four as alternates. All applicants will be notified of their status.

TIMELINE
EVENT I: TRAINEE RECRUITMENT

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Brochure	2	TR	NWREL	├──┤									
2.Preliminary Interview Form	1	TR	TR		├─┤								
3.Slide Tape Presentation	3	TR	NWREL	├─	──┤								
CONTINUING TASKS													
1.Distribution of Brochure (& Personnel Cont.)	8	TR	ALL	├──	────	──┤							
2.Initial Screening	2	TR	ALL		├──┤								
3.Initial Conf. (With Planning Time)	2	TR	TR		├──┤								
4.Follow up Dossier Comp. on Trainee	2	TR	TR			├──┤							
5.Interim Selec. of Trainees & Alternates	2	ALL	NWREL			├──┤							
TOTAL													

Consortium Participants

PROGRAM: Consortium Program Funds
NWREL: Northwest Regional Educational Laboratory
OSDE: Oregon State Department of Education
OSU: Oregon State University

PPS: Portland Public Schools
TR: Teaching Research
UofO: University of Oregon
UofW: University of Washington
ALL: All Consortium Members

Detailed Budget Support Document
Event I - Trainee Recruitment

Development Task 1 - Brochure

1. Printing and Reproduction		
a. Printing	$ 400	$ 400
Printing of Brochure		
2. Other Services		
a. Subcontracts		
Media Technician for 2 weeks (base salary $1,200/mo.)	600	600
3. Indirect Costs (8%)		80
Total		$1,080

Development Task 2 - Preliminary Interview Form

1. Personnel Compensation		
a. Consultant fees		
Training of 10 interviewers	1,400	1,400
2. Transportation and Per Diem		
a. Consultant Transportation and Per Diem		
Transportation for 10 interviewers	160	
Per Diem for 10 Interviews, 1 da. ea	250	
(@ $25 per da. ea.)	410	410
3. Other Services		
a. Equipment Rental		
Rental of Recorders	100	100
4. Indirect Costs (8%)		153
Total		$2,063

Development Task 3 - Slide-Tape Presentation

1. Personnel Compensation		
a. Consultant fees		
Audio Visual Consultant	1,000	1,000
2. Transportation and Per Diem		
a. Consultant Transportation		
Consultant Trips to Coordinating Unit and Field	800	
Per Diem for Consultant, 2 da.	50	
(@ $25 per da.)	850	850

3. Other Services		
a. Equipment Rental		
Photographic and Audio Equipment	$ 50	
b. Subcontracts		
Production of slide/tapes	500	
	550	$ 550
4. Supplies		
a. Program		
Film and Tapes	200	200
5. Indirect Costs (8%)		208
Total		$2,808

Continuing Task 1 - Distribution of Brochure (and Personal Contact)

(The Coordinating Unit Budget Supports This Task Completely)

Continuing Task 2 - Initial Screening

(The Coordinating Unit Budget Supports This Task Completely)

Continuing Task 3 - Initial Conference (With Planning Time)

1. Transportation and Per Diem		
a. Consultant Transportation		
Transportation of 40 Applicants @ 160 miles ea.(6,400 mi.@10¢ per mile)	640	
b. Conference Costs		
Luncheon for 55 Persons(@ $2.00 per person) and Coffee Service	118	
	758	758
2. Rent and Utilities		
a. Rent		
Conference Rooms	100	100
3. Indirect Costs (8%)		69
Total		$927

Continuing Task 4 - Followup Dossier Completed on Candidate

(The Coordinating Unit Budget Supports This Task Completely)

Continuing Task 5 - Interim Selection of Trainees and Alternates

(The Coordinating Unit Budget Supports This Task Completely)

Total Budget, Event I	$6,878

EVENT II: THE INDUCTION PROCESS

(Screening of 25 Applicants to 15 Initial Trainees)

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1. Personnel Comp.	2. Trans. & Per Diem	3. Rent & Utilities	4. Communications	5. Print. & Reproduct.	6. Other Services	7. Supplies	8. Equipment	9. Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1. Competency Profile Instrument	6	TR	TR	*(BALANCE) $ 7,360	*	*	*	-0-	*	*	*	$ 589	$ 7,949
2. Field Survey to Derive Model Comp. Profile	10	TR	TR	*(BALANCE) 8,000	*(BALANCE) $ 400	*	*	-0-	-0-	*	-0-	672	9,072
3. Profile Validation	4	TR	TR	*(BALANCE) 2,000	*	*	*	$ 300	$ 5,750	$ 250	-0-	664	8,964
4. Slide/Tape Refinement	4	TR	NWREL	*(BALANCE) 1,000	-0-	**	-0-	-0-	800	-0-	**	144	1,944
5. Instructional Materials For Training Staff	4	ALL	TR NWREL	*(BALANCE) 1,500	350	*	*	500	-0-	650	-0-	240	3,240
6. Instructional Materials For Trainees	60	TR	TR	*(BALANCE) 50,000	650	*	$ 500	-0-	-0-	20,000	-0-	5,692	76,842 (108,011)
CONTINUING TASKS													
1. Selection and Training of Training Staff	8	ALL	TR	*(BALANCE) 2,000	*(BALANCE) 600	*	*	*	-0-	*	-0-	208	2,808
2. Induction Process	1	TR	TR	*(BALANCE) 9,400	*(BALANCE) 4,840	*(BALANCE) 500	*	-0-	500	500	-0-	1,259	16,999 (19,807)
3. Trainee Selection	1	ALL	TR	*	*	*	*	-0-	-0-	*	-0-	-0-	-0-
TOTAL				$81,260	$ 6,840	$ 500	$ 500	$ 800	$ 7,050	$21,400	-0-	$ 9,468	$127,818

Task Descriptions to Accompany Timeline Charts
Event II - The Induction Process

Development Task 1: "Competency Profile Instrument"

Once the tasks within each competency area are specified and arranged in order of difficulty, the display and recording formats can best be developed through the process of trying out the procedure with a variety of test subjects. Probably at least ten trainee-subjects should be used, with time in between for revisions of the procedures, form, and display formats.

Before the initial trial interviews, an example should be generated for each task, and written up in a form for presentation. By carefully recording test-subject reactions to these documents, and their suggestions for change, these can be successively altered and improved.

The examples used for explanatory purposes should form the basis for any simulated assessment procedures. Once written up and improved, the entire set of examples should be able to be turned over to a simulation/ assessment team who could generate the first set of assessment simulations. These, too, should be tried out on a group of subjects who are known to possess the competency being assessed.

Development Task 2: "Field Survey to Derive Model Competency Profiles"

Once the competency profile generation procedures are tested, a systematic survey of all types of educational institutions must be made to determine the kinds of educational development and evaluation personnel they most need, and to translate these job openings into the competency profile format, indicating the minimum profiles which they would hire for these jobs. This will be done by interviewing the directors of these various institutions, and asking them to indicate employees who come close to the kind of individual they want. Then these individuals will be rated on the competency profile device. This survey procedure should be repeated quarterly to keep up to date the job openings which need filling, and every effort should be made to expand the institutions which are so surveyed.

In addition, a selection of employees at various salary levels in each institution should be rated on the competency profile and their profiles provided as examples.

Development Task 3: "Profile Validation"

The criteria for profile adequacy for the training program should be based on this information generated from the field, and continuously updated. This involves determining some mathematical or other method for combining the many profiles derived from the field and determining some minimal levels in certain things, along with some overall competency levels on which the training program should insist.

Once the simulation assessment devices are developed and adequately tested for operational purposes, an attempt should be made to determine the degree of difference in the competency profiles of persons who can perform the simulation test as opposed to those who cannot. This implies testing the assessment devices on a large sample of subjects. This cannot be done for all of the devices, but if done for a few, it is hoped that useful rules-of-thumb will be developed. The appropriateness of any profile adjustments based on these devices will become more apparent as the trainees are tracked through the training program.

Development Task 4: "Slide-Tape Refinement"

The initial work in the development of the slide-tape presentation which explains the overall training program will be finished for the initial trainee meeting in February. For the March meeting this slide-tape could be improved if any improvements seemed necessary. Then, additional slides would have to be developed which dealt with the competency profile and its role in the training program in such a way that the trainee understood its importance. Once the staff determined the content of this portion of the slide-tape, the development could be turned over to a slide-tape development group.

Development Task 5: "Instructional Materials for Training Staff"

Materials will be developed to assist in the training of the training staff in such areas as preparing competency profiles, conducting the induction interviews and functioning in an operating setting.

Development Task 6: "Instructional Materials for Trainees"

Once the tasks in the competency profile are determined and the nature of the products which would satisfy the competency specified, a team should be set to work identifying all the existing instructional materials relevant to the successful production of each product. These materials would include text books, articles and all other instructional materials.

Copies of all available materials should be purchased in sufficient numbers of sets for each of the training sites, and should be arranged and catalogued for ready access and use in a field setting.

Determination should be made of all tasks for which no instructional materials, or no good instructional materials exist, and for these, a group of developers set to work to develop some appropriate materials.

Continuing Task 1: "Selection and Training of Training Staff"

The training staff should be made up of persons with experience teaching in a university setting and members of the projects which will be the training contexts once the program becomes operational, particularly the directors of such projects.

The directors of each of the consortium institutions will be asked to nominate possible training staff personnel from their institutions. A file on these nominees will be developed, including a competency profile rating.

The Governing Council of the Consortium will make the selection of the training staff, taking into account both the strength of the project with which any potential staff member is associated, and the strength of the nominee himself. It is expected that the project with which a nominee is associated will become a training project. The training staff must have the confidence of all members of the consortium.

Once the training staff is selected, substantial training will have to be conducted to familiarize the staff with the training program, with the competency profiles, with the responsibilities of a training staff member in an operating setting, and to perform the Induction Interview Process.

Continuing Task 2: "Induction Interview Process"

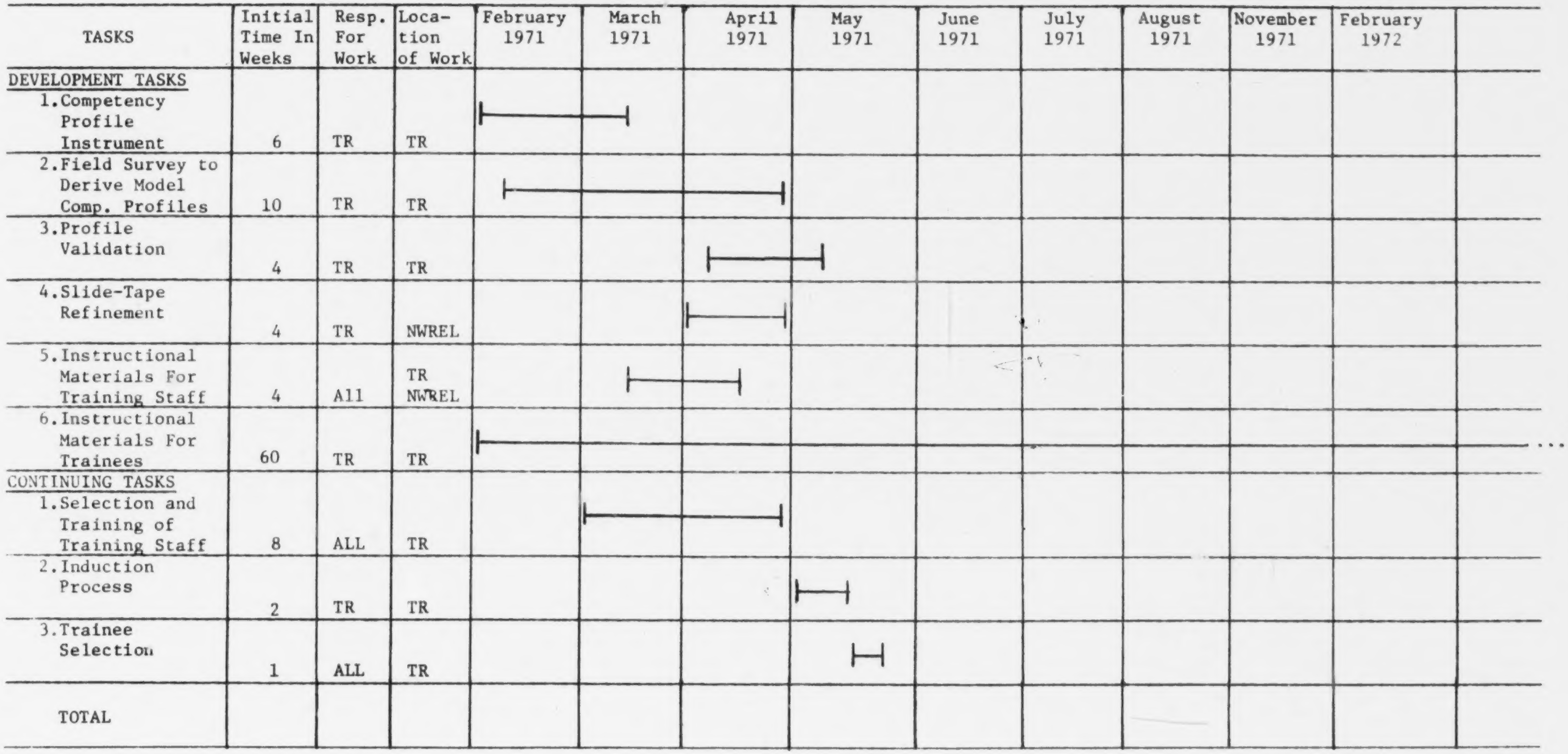
The twenty-five applicants will meet for one week with the training staff. Activities will include orientation, completion of a competency profile with task analysis, scoring of the profile, completion of a proposed profile, verification of competency ratings and final determination of the competency profile including ordering of competency tasks within the profile.

Continuing Task 3: "Trainee Selection"

Final selection of fifteen trainees and two alternates will be made and announced.

TIMELINE
EVENT II: THE INDUCTION PROCESS

(Screening of 25 Applicants to 15 Initial Trainees)



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1. Competency Profile Instrument	6	TR	TR										
2. Field Survey to Derive Model Comp. Profiles	10	TR	TR										
3. Profile Validation	4	TR	TR										
4. Slide-Tape Refinement	4	TR	NWREL										
5. Instructional Materials For Training Staff	4	All	TR NWREL										
6. Instructional Materials For Trainees	60	TR	TR										...
CONTINUING TASKS													
1. Selection and Training of Training Staff	8	ALL	TR										
2. Induction Process	2	TR	TR										
3. Trainee Selection	1	ALL	TR										
TOTAL													

Detailed Budget Support Document
Event II - The Induction Process

Development Task 1 - Competency Profile Instrument

1. Personnel compensation		
a. Consultant fees		
(1) 2 interviewers half-time for 6 weeks (base salary $1,400 mo. ea.)	$2,100	
(2) 10 trainee-subjects for 3 hrs. each ($12.00 per hour ea.)	360	
(3) 3 writers for 1 mo. ($700 mo. ea.)	2,100	
(4) 2 simulation designers for 2 mo. ($700 mo. ea.)	2,800	
	$7,360	$7,360
2. Indirect costs (8%)		589
Total		$7,949

Development Task 2 - Field Survey to Derive Model Competency Profiles

1. Personnel compensation		
a. Consultant fees		
(1) 2 interviewers for 10 wks. (base salary $1,400 mo. ea.)	$7,000	
(2) 20 interviewees for 1/2 da. ea. (@ $100 da. ea.)	1,000	
	$8,000	$8,000
2. Transportation and per diem		
a. Consultant transportation		
Transportation in field	400	400
3. Indirect costs (8%)		672
Total		$9,072

Development Task 3 - Profile Validation

1. Personnel compensations		
a. Consultant fees		
(1) 1 evaluation specialist for 1 mo. (@ $1,500 mo.)	$1,500	
(2) 20 consultants for 1/2 da. ea. (@ $50 da. ea.)	500	
	$2,000	$2,000
2. Printing and reproduction		
a. Printing of assessment devices	300	300

3. Other services		
a. Data processing		
Program for profile treatment	$ 500	
b. Subcontracts		
Development of simulation assessment devices	5,250	
	$5,750	$5,750
4. Supplies		
a. Program	250	250
5. Indirect costs (8%)		664
Total		$8,964

Development Task 4 - Slide - Tape Refinement

1. Personnel compensation		
a. Consultant fees		
Audio visual consultant (3 wks.)	$1,000	$1,000
2. Other services		
a. Subcontracts		
Production of slide/tapes	800	800
3. Indirect costs (8%)		144
Total		$1,944

Development Task 5 - Instructional Materials for Training Staff

1. Personnel compensation		
a. Consultant fees		
Materials development specialist (1 mo.)	$1,500	$1,500
2. Transportation and per diem		
a. Consultant transportation and per diem	350	350
3. Printing and reproduction		
a. Duplicating instructional materials	500	500
4. Supplies		
a. Program	650	650
5. Indirect costs (8%)		240
Total		$3,240

Development Task 6 - Instructional Materials for Trainees

1. Personnel compensation		
a. Consultant fees		
Technical consultants to produce 30 instructional packages	$50,000	$50,000
2. Transportation and per diem		
a. Consultant transportation and per diem	650	650

3. Communications		
a. Telephone and telegraph	$ 500	$ 500
4. Supplies		
a. Program		
Materials needed to produce 30 instructional packages	20,000	20,000
5. Indirect costs (8%)		5,692
Total		$76,842

Continuing Task 1 - Selection and Training of Training Staff

1. Personnel compensation		
a. Consultant fees		
10 prospective trainers for 2 da. ea. (@ $100 per da. ea.)	$ 2,000	$ 2,000
2. Transportation and per diem		
a. Consultant transportation and per diem		
10 trainers transportation (100 mi. ea. @ 10¢ per mi.)	$100	
10 trainers per diem for 2 da. ea. (@ $25 per da. ea.)	500	
	$600	600
3. Indirect costs (8%)		208
Total		$2,808

Continuing Task 2 - Induction Interview Process

1. Personnel compensation		
a. Salary and Wages		
10 trainers for 5 da. (base salary $1,600 mo. ea.)	$4,000	
b. Personnel benefits (10%)	400	
c. Consultant fees		
25 applicants for 5 da. (base salary $800 mo. ea.)	5,000	
	$9,400	$9,400
2. Transportation and per diem		
a. Staff and consultant transportation and per diem		
35 personnel (@ 150 mi. ea. @ 10¢ per mi.)	$ 525	
35 personnel for 5 da. (@ $25 per da. ea.)	4,315	
	$4,840	4,840
3. Rent and Utilities		
a. Rent		
Conference rooms (1 week)	500	500

4. Other services		
a. Equipment rental audio visual equipment	$ 500	$ 500
5. Supplies		
a. Program	500	500
6. Indirect costs (8%)		1,259
Total		$16,999

Continuing Task 3 - Trainee Selection

(The Coordinating Unit budget supports this task completely)

Total Budget, Event II	$127,818

EVENT III: THE TRIAL PROJECT(S)

TASKS	Initial Time In Weeks	Resp. For Work	Location of work	1 Personnel Comp.	2. Trans. & Per Diem	3. Rent & Utilities	4. Communications	5. Print. & Reproduct.	6. Other Services	7. Supplies	8. Equipment	9. Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1. Field Problems Seminar Development	3	TR	PPS	*(BALANCE) $ 3,625	$ 200	**	*	-0-	-0-	$ 500	-0-	$ 346	$ 4,671
2. Conference and Supervision Training Mat.	6	TR	TR	*(BALANCE) 3,000	410	*	*	200	2,000	300	-0-	473	6,383
													($11,054)
CONTINUING TASKS													
1. Selec. (or Crea.) Staff. & Plann. of the Trial Proj.	18	TR	NWREL PPS TR	*	384	**	500	-0-	1,500	600	-0-	239	3,223
2. Site Arrangements	10	TR	NWREL PPS TR	*(BALANCE) 600	640	*	500	-0-	1,250	300	-0-	263	3,553
3. Sche. Seminars, Conf., Staff Meetings	1	TR	TR	*	-0-	*	-0-	-0-	-0-	*	-0-	-0-	-0-
4. Content Seminar Planning	4	TR	TR	*(BALANCE) 2,000	*(BALANCE) 500	*	*	-0-	500	500	-0-	280	3,780
5. Content Seminar Operation	5	TR	NWREL PPS TR	*(BALANCE) 6,000	480	**	*	200	150	*	-0-	546	7,376
6. Field Problems Seminar Operation	5	TR	NWREL PPS TR	*(BALANCE) 2,500	200	**	*	200	150	*	-0-	244	3,294
7. Conf./Supervision Training and Operation	6	TR	NWREL PPS TR	*(BALANCE) 7,650	-0-	**	*	-0-	-0-	300	-0-	636	8,586
8. Assessing of Competence in Context	8	TR	NWREL PPS TR	*(BALANCE) 4,300	216	**	*	-0-	1,000	1,000	-0-	521	7,037
9. Trial Project Operation[1]	5	TR	NWREL PPS TR	*(BALANCE) 30,000	*(BALANCE) 12,500	**	*	-0-	500	300	**	3,464	(28,764) $46,764
													($83,613)
TOTAL				$59,675	$15,530	-0-	$1,000	$600	$7,050	$3,800	-0-	$ 7,012	($65,613) $94,667 ($76,667)

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[1] The three trial projects will be actual projects. The groups desiring to have the projects done will each contribute $6,000 for the work which the project will accomplish. The Training Consortium will contribute approximately $9,000 per trial project. The group agreeing to allow its contracted project to be a trial project will receive a $15,000 project for its $6,000. This income will reduce the cost of trial project operation by $18,000 thus reducing the total for Event III from $94,667 to $76,667. This adjusted total is shown in the budget summary.

Task Descriptions to Accompany Timeline Charts
Event III - The Trial Projects

Development Task 1: "Field Problems Seminar Development"

Through discussions with the Governing Council and others experienced in field-centered training programs, as complete a list as possible of probable problems and issues must be generated. For each of these, instructional procedures must be sought out or developed to examine the issue or problem and to help trainees and staff decide how to deal with the issue when it comes up. If there is a solution preferred by the Governing Council, this will be the focus of the training program. If, as seems likely, many of the problems will have no solution except an agreed way to handle the problem if it comes up, the need will be to train staff and trainees in the procedures.

It is anticipated that many of these procedures will best be learned by the techniques of role playing, improvision and group process. Once a particular problem is confronted, every effort will be made to run the trial project in the future according to the best solution generated by the seminar. In this way both the staff and the trainees will become socialized into a set of procedures which make learning possible through ongoing project experiences.

It seems that one critical need will be to develop procedures for confronting new issues if and when they arise. The staff will establish before the trial project begins, a procedure for allowing the confrontation of new issues.

Development Task 2: "Conference and Supervision Training Materials"

Prior to the beginning of the trial projects, the staff must be trained in the techniques of supervision and conference-counseling. If the trainee is to learn, this will involve some determination ahead of time of what is legitimate in the way of help and supervision, and what is not. Furthermore, the staff will have to agree to meet regularly to discuss various supervision problems, and to put together other support procedures for handling trainees with severe difficulties.

It is anticipated that as much as a week of training will be necessary, based largely on the role playing of various possible problems that a trainee might bring to his supervisor. These role-playing situations will be videotaped and discussed; guidelines will be developed for the supervision sessions.

Continuing Task 1: "Selection (or Creation), Staffing and Planning of the Trial Project"

Once the initial negotiated profile on each trainee has been derived, and the trainee has selected the three areas in order of preference where he would like to start, the need will be to either select or create some trial projects which maximize the fit between the needs of the trainees and the needs of the projects. These trial projects will serve to test out the procedures to be used in actual field projects,

to teach the training staff how to operate a training program within a project context, and to train the trainees how to learn from such settings. If fifteen trainees are selected, it is estimated three trial projects would be sufficient, probably located in three different institutions in the consortium.

Nominations of possible trial projects will be received from the consortium institutions. Additional projects which each of the institutions would like to see done will also be derived. Once the needs of each of the projects have been assessed, these will be matched with the training needs of the trainees.

If the projects are satisfactory, they then will be staffed by the designated staff of the training program, making whatever provisions are necessary to release such designated staff from their institutions to take part in the trial project.

As soon as the trial projects are selected and staffed, the plans for the project and timelines will have to be laid out so they include the requisite experiences for the trainees, and so the requirements of the project can be satisfied within the time limits of the projects. This will be done by the project staff.

Continuing Task 2: "Site Arrangements"

Once the trial projects have been selected or created, the necessary support, space and equipment will have to be placed at that site. A list of needs will be generated by the project staff based on the needs of the project, of the trainee and of the development of procedures for the training program. The project directors of the trial projects will negotiate with each institutional site for each of the list of needs, with virtually the entire cost being borne by the training program. The arrangements between the trial project and the site will be written into a legal subcontract which will serve as a prototype for future agreements with all training projects.

Continuing Task 3: "Scheduled Seminars, Conferences and Staff Meetings"

With the demands of testing the procedures of the training program in mind, with the needs of the trainees and the needs of the projects, the staff must determine a schedule of meetings during the life of the trial project which permit all to happen. On the basis of the trial project's experience, the relative incidence of each kind of meeting could be altered as necessary, and a new schedule developed for use in the actual field projects.

Continuing Task 4: "Content Seminar Planning"

The intent of the Content Seminar is to be responsive to the needs of the trainees in successfully completing their tasks, while also going beyond the particular task each trainee has and generalizing the

particular experience. Therefore, the most important work to be accomplished will be the determination of procedures to assure optimal content relevance for the trainee and plans for organizing, presenting and monitoring their effectiveness.

Probable content areas must be determined ahead of time, and preliminary work done in planning instruction related to these areas. This must be done by the project staff, once the tasks of completing the project are specified. Then, individuals must be identified to lead a seminar session on these topics. They must be put on call for whenever the topic may arise. It is anticipated that many of the topics will be within the competence of the training staff.

Once the content area for any seminar session is established, the evaluation procedures to assess that seminar must be determined and implemented.

Continuing Task 5: "Content Seminar Operation"

One content seminar per week will be conducted for trainees at trial project sites. Training staff and consultants will participate. Seminar content will be responsive to trainee needs in task performance.

Continuing Task 6: "Field Problems Seminar Operation"

One field problems seminar per week will be conducted for trainees at trial project sites. Training staff and consultants will participate. Seminar content will depend heavily upon incidents reflecting a range of possible task performance and interpersonal behaviors.

Continuing Task 7: "Conference and Supervision Training and Operation"

The ongoing supervisory program is designed to respond to trainee needs primarily through the function of training staff and consultants utilizing videotaped role-playing episodes.

Continuing Task 8: "Assessing of Competence in Context"

Criteria for the assessment of each trainee product will have been specified. Examples of work satisfying those criteria, and work not satisfying those criteria, will be available. The training staff will need to practice assessing trainee work carefully according to the criteria established, and in the manner suggested by the competency profiles. At the end of the project the effectiveness of these procedures will need to be assessed.

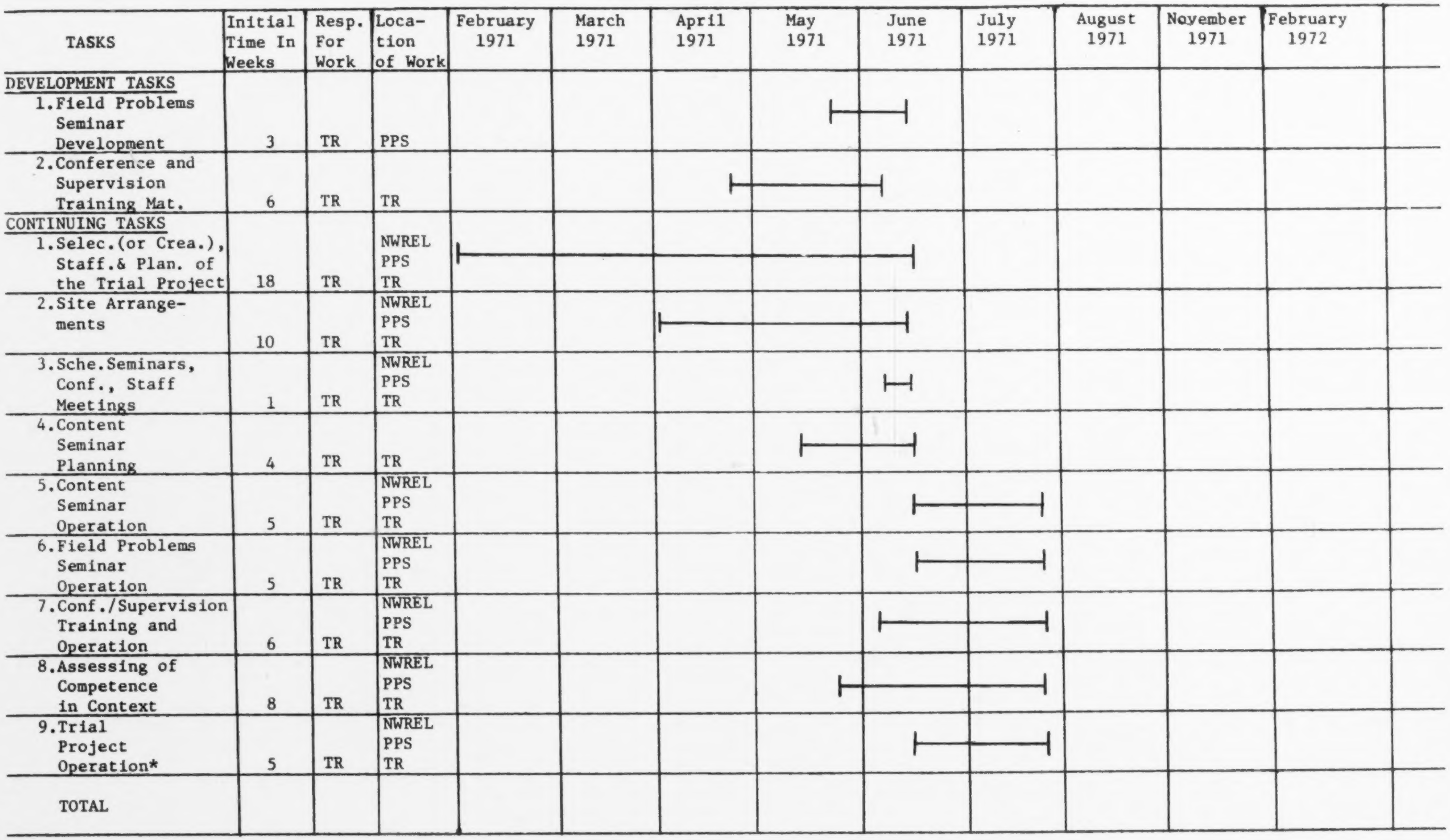
Continuing Task 9: "Trial Project Operation"

Fifteen trainees will be assigned to three trial project sites at an approximate ratio of five trainees per site.

The experience will be for five weeks incorporating competency profile task practice in an operational setting, conferences and seminars as scheduled (and described in earlier task descriptions).

Trainees will interact with advisors and training staff, many of whom will continue into the actual projects, Event IV.

TIMELINE
EVENT III: THE TRIAL PROJECT(S)*



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Field Problems Seminar Development	3	TR	PPS										
2.Conference and Supervision Training Mat.	6	TR	TR										
CONTINUING TASKS													
1.Selec.(or Crea.), Staff.& Plan. of the Trial Project	18	TR	NWREL PPS TR										
2.Site Arrangements	10	TR	NWREL PPS TR										
3.Sche.Seminars, Conf., Staff Meetings	1	TR	NWREL PPS TR										
4.Content Seminar Planning	4	TR	TR										
5.Content Seminar Operation	5	TR	NWREL PPS TR										
6.Field Problems Seminar Operation	5	TR	NWREL PPS TR										
7.Conf./Supervision Training and Operation	6	TR	NWREL PPS TR										
8.Assessing of Competence in Context	8	TR	NWREL PPS TR										
9.Trial Project Operation*	5	TR	NWREL PPS TR										
TOTAL													

*Figured on the basis of three trial projects and 15 trainees.

Detailed Budget Support Document
Event III - The Trial Projects

Development Task 1 - Field Problems Seminar Development

1. Personnel compensation		
a. Consultant Fees		
(1) 1 evaluation specialist for 3 weeks (base salary $1,500 mo.)	$ 1,125	
(2) 5 group process specialists for 5 da. ea. (@ $100 per da. ea.)	2,500	
	$ 3,625	$ 3,625
2. Transportation and per diem		
a. Consultant transportation		
5 group process consultants 5 trips ea. (@ 80 mi. trip; 2,000 mi. @ 10¢ per mi.)	200	200
3. Supplies		
a. Program	500	500
4. Indirect costs (8%)		346
Total		$4,671

Development Task 2 - Conference and Supervision Training Materials

1. Personnel compensation		
a. Consultant fees		
3 specialists for 2 weeks ea. (@ $500 per week ea.)	$3,000	$3,000
2. Transportation and per diem		
a. Consultant transportation and per diem		
20 trips @ 80 mi. per trip (@ 10¢ per mi.)	160	
1 consultant per diem for 10 days (@ $25 per da.)	250	
	$410	410
3. Printing and reproduction		
a. Duplicating		
Duplicating of training materials	200	200
4. Other services		
a. Subcontracts		
Video-tape instructional sessions and duplicate copies	2,000	2,000
5. Supplies		
a. Program	300	300
6. Indirect costs (8%)		473
Total		$6,383

Continuing Task 1 - Selection (or creation), Staffing and Planning of the Trial Projects

1. Transportation and per diem		
a. Staff transportation conference trips (3,840 mi. @ 10¢ mi.)	$ 384	$ 384
2. Communications		
a. Telephone and telegraph	500	500
3. Other services		
a. Data processing program for matching trainee/trial project	1,500	1,500
4. Supplies		
a. Program	600	600
5. Indirect costs (8%)		239
Total		$3,223

Continuing Task 2 - Site Arrangements

1. Personnel compensation		
a. Consultant fees 1 lawyer for 6 days (@ $12 per hr.)	$600	$600
2. Transportation and per diem		
a. Staff transportation visits to perspective sites	640	640
3. Communications		
a. Telephone and telegraph	500	500
4. Other services		
a. Other Legal services retainer for 6 weeks (@ $500 mo.)	1,250	1,250
5. Supplies		
a. Program	300	300
6. Indirect costs (8%)		263
Total		$3,553

Continuing Task 3 - Schedule Seminars, Conferences and Staff Meetings

(The Coordinating Unit budget supports this task completely)

Continuing Task 4 - Conduct Seminar Planning

1. Personnel compensation		
a. Consultant fees		
2 specialists 10 da. ea. (@ $100 da. ea.)	$ 2,000	$2,000
2. Transportation and per diem		
a. Consultant per diem		
(20da. @ $25 per da.)	500	500
3. Other services		
a. Subcontracts		
Graphic artist for 50 hrs. (@ $10 per hr.)	500	500
4. Supplies		
a. Program	500	500
5. Indirect costs (8%)	280	280
Total		$3,780

Continuing Task 5 - Content Seminar Operation

1. Personnel compensation		
a. Consultant fees		
12 consultants for 5 da. ea. (@ $100 da. ea.)	$6,000	$6,000
2. Transportation and per diem		
a. Consultant transportation		
12 consultant trips 5 times @ 80 mi. ea. (@10¢ per mi.)	480	480
3. Printing and reproduction		
a. Duplicating	200	200
4. Other services		
a. Subcontracts		
Media modification of materials	150	150
5. Indirect costs (8%)		546
Total		$7,376

Continuing Task 6 - Field Problems Seminar Operation

1. Personnel compensation		
a. Consultant fees		
5 consultants for 5 da. ea. (@ $100 da. ea.)	$2,500	$2,500

2. Transportation and per diem		
a. Consultant transportation		
5 consultant trips 5 times @ 80 mi. ea. (10¢ per mi.)	$ 200	$ 200
3. Printing and reproduction		
a. Duplicating	200	200
4. Other services		
a. Subcontracts		
Media modification of materials	150	150
5. Indirect costs (8%)		244
Total		$3,294

Continuing Task 7 - Conference and Supervision Training and Operation

1. Personnal compensation		
a. Consultant fees		
3 advisors/trainers for 6 weeks ea. (@ $1,700 per mo. ea.)	$7,650	$7,650
2. Supplies		
a. Program	300	300
3. Indirect costs (8%)		636
Total		$8,586

Continuing Task 8 - Assessing of Competence in Context

1. Personnel compensation		
a. Consultant fees		
(1) 1 writer 1/2 time for 2 mo. (@ $700 mo.)	$1,400	
1 librarian 1/2 time for 2 mo. (@ $700 mo.)	1,400	
5 consultants for 3 da. ea. (@ $100 da. ea.)	1,500	
	$4,300	$4,300
2. Transportation and per diem		
a. Consultant transportation (2,160 mi. @ 10¢ mi.)	216	216
3. Other services		
a. Data processing		
Program for assessment	1,000	1,000
4. Supplies		
a. Program	1,000	1,000
5. Indirect costs (8%)		521
Total		$7,037

Continuing Task 9 - Trial Project Operation (3 sites)

1. Personnel compensation		
a. Consultant fees		
(1) 15 trainees for 5 wks. (@ $200 wk.)	$15,000	
(2) 3 training site cordinators for 5 wks. (@ $385 wk.)	5,775	
(3) 6 training site staff/trainers for 5 wks. ($307 wk.)	9,225	
	$30,000	$30,000
2. Transportation and per diem		
a. Consultant transportation and per diem		
Transportation allowance, 15 trainees	500	
Per diem for 24 persons for 25 da. (@ $20 per da.)	12,000	
	$12,500	12,500
3. Other services		
a. Other		
Recording and data analysis	500	500
4. Supplies		
a. Program	300	300
5. Indirect costs (8%)		3,464
Total*		($46,764)
Total Budget, Event III*		($94.667) $76,667

*See Event III Budget Summary footnote for explanation of $18,000 reduction

EVENT IV: ACTUAL PROJECT ASSIGNMENT(S)

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1.Procedure For Describing Proj.in Detail	4	TR	OSU TR	*	*	*	*	$ 100	-0-	$ 100	*	$ 16	$ 216
2.Maximum Fit - Computer Matching Program	4	TR	OSU	*	-0-	**	*	*	$ 500	*	-0-	40	540
3.Orientation Program For Each Site	3	TR	NWREL	*(BALANCE) $ 1,000	$ 275	**	*	-0-	900	300	-0-	198	2,673
4.Proj. Site Arrangements (Per Site)	2	TR	NWREL PPS TR	*	*	*	*	*	-0-	*	-0-	-0-	-0-
CONTINUING TASKS													($3,429)
1.Assembly of Detailed Info. on Each Tr. Proj.	6	TR	NWREL PPS TR	*	*	*	*	*	-0-	*	-0-	-0-	-0-
2.Matching of Trainees to Avail.Exper.	6	TR	TR	*	*	*	*	*	700	-0-	-0-	56	756
3.Project Site Operation	48	ALL	NWREL PPS TR	*(BALANCE) $125,400	*(BALANCE) 11,250	**	* **	*	1,000	* **	* **	$11,012	$148,662
TOTAL				$126,400	11,525	-0-	-0-	$ 100	$3,100	$ 400	-0-	$11,322	($149,418) $152,847

Task Descriptions to Accompany Timeline Charts
Event IV - Actual Project Assignments

Development Task 1: "Procedure for Describing Project in Detail"

The specific procedure will be developed and may consist of the data collection techniques developed by Schalock, et al., (1970) for describing a project.

Development Task 2: "Maximum Fit--Computer Matching Program"

To achieve the best possible fit between projects available and trainee desires as reflected in their competency profile, a computer program will be developed.

Development Task 3: "Orientation Program for Each Site"

The major development effort which must be done for orientation purposes is the work on orienting trainees to an institution. This will take an interview team to develop the information, and another specialist to put it into an orientation package.

Development Task 4: "Project Site Arrangements (Per Site)"

As soon as the number of trainees to be placed at a site has been determined, the core staff must negotiate with the site institution for the necessary support facilities and problem-handling mechanisms to permit the training program to operate. It is anticipated that the Governing Council will facilitate such negotiations. The most necessary arrangements seem to be staffing, staff training and staff relationships; space for offices, seminars, and the library; and the problem-handling mechanisms.

Continuing Task 1: "Assembly of Detailed Information on Each Training Site"

Each project nominated as a possible training project will be visited by a project analysis team trained in the data collection techniques developed for describing a project. Out of this procedure will fall a complete description of the proposed training project.

Once a preliminary determination of possible training projects is made, based on the match between the tasks to be done and the needed training experiences, interviews must be conducted with the project director and the project staff to determine their receptivity to becoming a training project and to undergoing instruction in running their project as a training project.

Assuming success in this, a procedure must be established for negotiating trainee placements and experiences when the time comes. The description of the project must be updated, and used as a basis for determining what trainee experiences will be provided for incoming trainees. These agreed-upon experiences must be written into a contract for the trainees and the training project.

Continuing Task 2: "Matching of Trainees to Available Experiences"

Since each trainee will indicate his first three preferences for areas of concentration, it is a simple mathematical procedure to maximize the fit between these choices and the available training experiences. Probably the computer program would be used to calculate this. Once trainees were matched with projects, the detailed specification of the experiences of the trainee would be worked out with the project director, and written into an agreement.

With the experiences specified, it would be a simple matter to determine the length of time the trainee would be with the project, depending on the timelines of the project and the availability of the experiences.

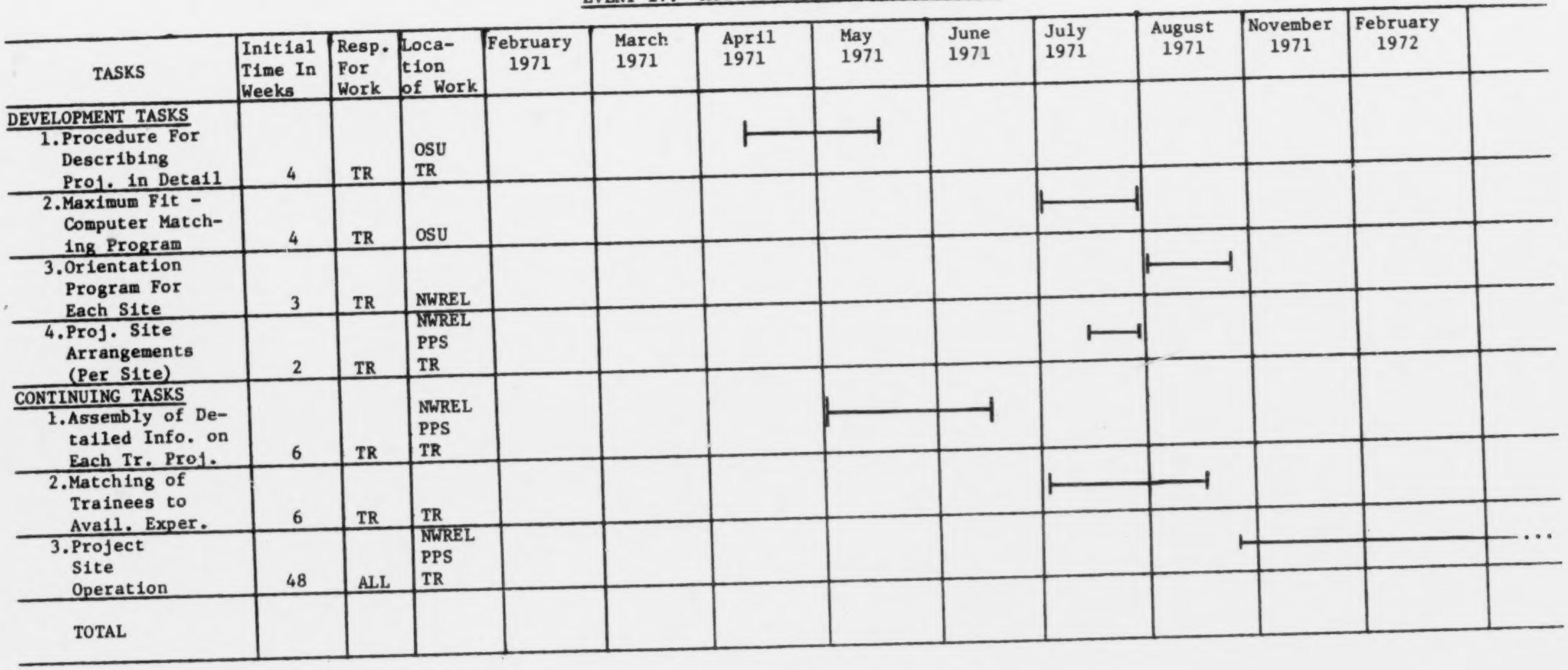
Continuing Task 3: "Project Site Operation"

Operation assumes five trainees (not necessarily the same persons) for a period of one year at a site.

Products from tasks accomplished in previous event descriptions will be utilized.

TIMELINE

EVENT IV: ACTUAL PROJECT ASSIGNMENT(S)*



TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1.Procedure For Describing Proj. in Detail	4	TR	OSU TR										
2.Maximum Fit - Computer Matching Program	4	TR	OSU										
3.Orientation Program For Each Site	3	TR	NWREL										
4.Proj. Site Arrangements (Per Site)	2	TR	NWREL PPS TR										
CONTINUING TASKS													
1.Assembly of Detailed Info. on Each Tr. Proj.	6	TR	NWREL PPS TR										
2.Matching of Trainees to Avail. Exper.	6	TR	TR										
3.Project Site Operation	48	ALL	NWREL PPS TR										...
TOTAL													

*Most trainees will have several assignments.

Detailed Budget Support Document
Event IV - Actual Project Assignments

Development Task 1 - Procedure for Describing Project in Detail

1. Printing and Reproduction		
a. Duplicating	$ 100	$ 100
2. Supplies		
a. Program	100	100
3. Indirect Costs (8%)		16
Total		$ 216

Development Task 2 - Maximum Fit - Computer Matching Program

1. Other Services		
a. Data processing program for matching (trainee/site)	$ 500	$ 500
2. Indirect Costs (8%)		40
Total		$ 540

Development Task 3 - Orientation Program for Each Site

1. Personnel Compensation		
a. Consultant fees Media Specialist for 10 da. (@ $100 da. ea.)	$1,000	$1,000
2. Transportation and Per Diem		
a. Consultant transportation and per diem, consultant transportation site visits 2,000 mi. (@ 10¢ per mi.)	200	
Consultant per diem site visits 3 da. (@ $25 per da.)	75	
	$ 275	275
3. Other Services		
a. Subcontracts 3 media packages (@ $300 ea.)	900	900
4. Supplies		
a. Program	300	300
5. Indirect Costs (8%)		198
Total		$2,673

Development Task 4 - Project Site Arrangements

(The Coordinating Unit budget supports this task completely)

Continuing Task 1 - Assembly of Detailed Information on Each Training Site

(The Coordinating Unit budget supports this task completely)

Continuing Task 2 - Matching of Trainees to Available Experiences

1. Other Services		
a. Data processing program for matching	$ 700	$ 700
2. Indirect Costs (8%)		56
Total		$ 756

Continuing Task 3 - Project Site Operation (3 sites)

1. Personnel Compensation		
a. Salary and wages		
(1) 3 site Coordinators for 1 yr. (@ $17,000 yr. ea.)	$18,000	
(2) 6 half-time staff/trainers for 1 yr. (@ $7,500 yr. ea.)	45,000	
(3) 3 secretaries for 1 yr. (@ $6,000 yr. ea.)	18,000	
b. Personnel benefits (10%)	11,000	
	$125,400	$125,400
2. Transportation and Per Diem		
a. Relocation expense for 15 trainees' initial assignment and subsequent reassignments	11,250	11,250
3. Other Services		
a. Other Trainee tuition fees for assigned course work for credit	1,000	1,000
4. Indirect Costs (8%)		11,012
Total		$148,662
Total Budget, Event IV		$152, 847

(NOTE: A trainee stipend of $5,000 per yr. per trainee will be paid directly to the trainee by the site)

EVENT V: PLACEMENT PROCESS

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	1.Personnel Comp.	2.Trans. & Per Diem	3.Rent & Utilities	4.Communications	5.Print. & Reproduct.	6.Other Services	7.Supplies	8.Equipment	9.Indirect Costs 8%	Total
DEVELOPMENT TASKS													
1.Certification Standards (Program)	4	TR	TR	*	*	*	*	$ 330	-0-	*	-0-	$ 26	$ 356
2.Certification Standards (Academic)	8	TR	OSU UW; UO STATE D.	* **	$ 500	* **	* **	-0-	-0-	* **	-0-	40	540
													($896)
CONTINUING TASKS													
1.Job Market Survey	12	TR	STATE BOARD	* **	*	* **	$ 400	*	-0-	$ 50	* **	36	486
2.Placement of Certified Trainees	48	ALL	TR UW; OSU UO	* **	500	*	$ 630	150	-0-	100	-0-	110	1,490
													($1,976)
TOTAL				*	$ 1,000	*	$ 1,030	$ 480	-0-	$ 150	-0-	$ 212	$ 2,872

Task Descriptions to Accompany Timeline Charts
Event V - Termination Process

Development Task 1: "Certification Standards (Program)"

Certificates which list and testify to competence must be developed. The nature of these certificates and the issuing body must be determined.

Appropriate certificates will be printed.

Development Task 2: "Certification Standards (Academic)"

A determination of course and degree levels, if any, appropriate to sets of training experiences must be made.

It is anticipated that the Governing Council (and particularly its degree-granting institutional members) will resolve this issue.

Continuing Task 1: "Job Market Survey"

Job opportunities in the field for trainees who have completed their programs must be determined and updated by the consortium coordinating unit.

Continuing Task 2: "Placement of Certified Trainees"

Placement will be an ongoing responsibility of the central program office which will identify potential employers, translate needs into competency profiles, match trainees to job opening profiles, and notify parties of a possible match.

TIMELINE
EVENT V: PLACEMENT PROCESS

TASKS	Initial Time In Weeks	Resp. For Work	Location of Work	February 1971	March 1971	April 1971	May 1971	June 1971	July 1971	August 1971	November 1971	February 1972	
DEVELOPMENT TASKS													
1. Certification Standards (Program)	4	TR	TR	├──┤									
2. Certification Standards (Academic)	8	TR	OSU UW UO ST. BOARD	├──	──┤								
CONTINUING TASKS													
1. Job Market Survey	12	TR	STATE BOARD						├──	───	──┤		
2. Placement of Certified Trainees	48	ALL	TR UofW OSU UofO										├──···
TOTAL													

Detailed Budget Support Document
Event V - Placement Process

Development Task 1 - Certification Standards (program)

1. Printing and reproduction		
a. Printing (certificates)	$300	
b. Duplicating	30	
	$330	$330
2. Indirect costs (8%)		26
Total		$356

Development Task 2 - Certification Standards (academic)

1. Transportation and per diem		
a. Consultant transportation Meetings of Governing Council members	$500	$500
2. Indirect costs (8%)		40
Total		$540

Continuing Task 1 - Job Market Survey

1. Communications		
a. Telephone and telegraph	$300	
b. Postage	100	
	$400	$400
2. Supplies		
a. Program	50	50
3. Indirect costs (8%)		36
Total		$486

Continuing Task 2 - Placement of Certified Trainees

1. Transportation and per diem		
a. Consultant transportation and per diem Selected interview trips for trainees	$500	$500
2. Communications		
a. Telephone and telegraph	$480	
b. Postage	150	
	$630	630
3. Printing and reproduction		
a. Duplicating	150	150

4.	Supplies		
	a. Program	$100	$100
5.	Indirect costs (8%)		110
	Total		$1,490
	Total Budget, Event V		$2,872

Training Consortium Coordinating Unit
(18 month budget)
February 1971 -- August 1972

1. Personnel Compensation		
a. Salary and wages		
(1) 1 training program director (annual base, $22,000)	$ 33,000	
(2) 2 assistant directors (annual base, $19,000 each)	57,000	
(3) 3 clerical (annual base, $7,200 each)	32,400	
(4) 3 training specialists on retainer (10% of annual base, $20,000 each)	6,000	
	$128,400	$128,400
b. Personnel benefits (10% of above)	$ 12,840	$ 12,840
c. Consultant fees 3 training consultants for estimated 15 days each (45 days @ $100 per day)	$ 4,500	$ 4,500
Total Compensation		$145,740
2. Transportation and Per Diem		
a. Staff transportation (10¢ per mile) site visits; two conference trips to Washington, D. C., etc.	$ 4,000	
Staff per diem ($25 per full day)	1,500	
	$ 5,500	$ 5,500
b. (1) Consultants' (3) transportation (10¢ per mile) site visits	$ 1,000	
Consultant per diem ($25 per full day)	500	
(2) Governing Council transportation (10¢ per mile) 18 one-day meetings - 200 miles, 8 members	2,880	
Consultant per diem ($10 per day x 8 x 18)	1,440	
(3) IRAC (7 members) transportation 18 one-day meetings - 1,800 miles @ 10¢ per mile	180	
Consultant per diem ($10 per day x 18 x 7)	1,260	
(4) Training specialists (3) transportation @ 10¢ per mile	1,000	
Consultant per diem ($25 per full day)	500	
	$ 8,760	$ 8,760
Total Transportation and Per Diem		$ 14,260
3. Rent and Utilities		
a. (1) 3 professional offices at 150 sq. ft. per person (450 sq. ft.) @ $5 per sq. ft. annually	$ 3,375	
(2) 3 secretarial offices at 100 sq. ft. per person (300 sq. ft.) @ $5 per sq. ft. annually	3,250	

(3) 1 conference meeting space (300 sq. ft.) @ $5 per sq. ft. annually	$ 3,250	
(4) Workroom space at 105 sq. ft. per 3 professionals @ $5 per sq. ft. annually	788	
(5) Filing/storage space at 105 sq. ft. per 3 professionals @ $5 per sq. ft. annually	788	
	$ 11,451	$ 11,451
b. Utilities (included in rent)	-0-	-0-
Total Rent and Utilities		$ 11,451
4. Communications		
a. Telephone and telegraph		
(1) Phone installation and basic rate for 3 professionals at $75 each annually	$ 338	
(2) Extension phone installation and basic rate for 3 secretaries at $25 each annually	113	
(3) Long distance charges	2,000	
	$ 2,451	$ 2,451
b. Postage ($200 per person, annually x 3)	$ 900	$ 900
Total Communications		$ 3,351
5. Printing and Reproduction	$ 1,000	$ 1,000
		$ 1,000
6. Other Services		
a. Equipment rental (projectors, tape recorders, etc.)	$ 800	$ 800
b. Data processing	$ 8,000	$ 8,000
Total Other Services		$ 8,800
7. Supplies (office, program, library)	$ 1,500	$ 1,500
		$ 1,500
8. Equipment		
3 secretarial desks @ $150	$ 450	
3 steno chairs @ $76	228	
3 desks @ $200	600	
3 executive chairs @ $120	360	
3 typewriters @ $468	1,404	
1 dictaphone @ $475	475	
1 transcriber @ $475	475	
3 files @ $72	216	
Misc accessories	300	
	$ 4,508	$ 4,508
Total Equipment		$ 4,508
9. Indirect Costs		
8% of direct costs ($190,610)		$ 15,249
Total Budget		$205,859